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ABSTRACT

Recommendations of the Governor's Commission on the Future of Higher Education in Michigan are presented in this final report. The recommendations focus on: investing in people, focusing priorities, supporting economic progress, and creating a partnership for action. Specific concerns include: stabilizing tuition and expanding aid to students, promoting educational opportunities, adopting minimum college admission standards, defining the instructional core, attracting and retaining faculty, updating instructional equipment and resources, identifying college roles and missions, developing a higher education database, adopting policy-based funding formulas, improving program review and approval, targeting capital expenditures, promoting program efficiency, strengthening institutional leadership, supporting excellence in research and development, moving expertise and innovations to the marketplace, responding to a changing workplace, assuming strong leadership in all sectors, and adjusting appropriations through increases and reductions. The executive order establishing the Governor's Commission is included, along with biographies for commission members and staff, and a list of the 25 background papers referred to in the report. (SW)

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Putting our minds together: New directions for Michigan higher education

The Governor's Commission on the Future of Higher Education in Michigan
Final Report December 1984 James K. Robinson, Chairman

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STATE OF MICHIGAN

JAMES J. BLANCHARD, Governor

COMMISSION ON THE FUTURE OF HIGHER EDUCATION

North Ottawa Building, Box 30026, Lansing, Michigan 48909

517-373-4565

December 13, 1984

The Honorable James J. Blanchard
Governor of Michigan
State Capitol
Lansing, Michigan

Dear Governor Blanchard:

Pursuant to the mandate of Executive Order 1983-11, I am pleased to transmit to you *Putting Our Minds Together: New Directions for Michigan Higher Education*. We bring a message of hope, not despair. Our higher education system is in jeopardy, true; but Michigan's institutions of higher learning are firmly in place, their leaders aware of the changes that must be made to ensure Michigan's pre-eminence in the field of education.

We have carried out the mandate you gave us in September, 1983. We believe this document represents a bold, innovative and creative approach to our problems. We believe, further, that it will be a model for other states to follow.

This final report represents months of probing research and unremitting labor. Each member of this Commission weighed every issue in a balance between individual problems and the needs of the state educational system as a whole. We are deeply grateful to the educators and researchers, the state leaders and policymakers who shared their knowledge with us, and to a talented and hard-working staff.

It is with a sense of pride and optimism that we present this final report. The emphasis throughout is on the vital partnership between our higher education system and our economic well-being. One cannot flourish without the other.

Through your efforts, the state has begun to reinvest in higher education, but even the most efficient system will continue to require funding. Tough choices will have to be made, and the interests of individual institutions coordinated with the best interest of the state as a whole.

We believe that this report is a pragmatic document and worthy of your hopes for this Commission.

This report, however, is only the beginning. The recommendations we have set forth must be implemented to preserve the integrity and balance of a superior higher education system. This report can point the way as you continue your leadership in support of higher education.

I look forward to discussing these final recommendations with you. I pledge my cooperation and that of my fellow commissioners in working with you to make sure that your vision, as exemplified in this report, will be translated into reality for the good of the generations of students to come.

Sincerely,

James K. Robinson

James K. Robinson
Chairman

cc: State Board of Education

Commission Members

James K. Robinson, Chairman
William M. Brodhead, Vice Chairman
George Arwady
Beverly A. Beltaire
Francis D. Brouillette
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Michele M. Hunt
Rachel B. Keith, M.D.
Robert Lowes
Henry G. Marsh
Stanley Marshall
Patricia L. Micklow
Dr. James W. Miller
Helen W. Milliken
Lillian Jaffe Oaks
Robert C. Pew
Charles F. Porter
Philip H. Power
Dr. Phillip E. Runkel
Dr. Gumecindo Salas
Stanley J. Winkelman

Commission Staff

Dr. Patricia R. Widmayer, Executive Director
L. Annette Abrams
Dr. Dwight Lee Peterson
Paul Reinhart
Patricia (Tish) Tanski
Melinda Remer
Rhea Lodge
Elizabeth Thompson
Jean Valley
Shirley Winters
John Hanieski
William Castanier

CREDITS

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The **Kellogg Foundation,** whose generosity made possible *Attitudes and Opinions: Michigan Higher Education,* a summary report of a statewide survey of Michigan adults, commissioned jointly by the Governor's Commission on the Future of Higher Education and the Michigan Association of Governing Boards. The **Directors** of the Departments of **Civil Rights, Commerce, Education, Labor** and **Mental Health,** who loaned staff for the Governor's Commission on the Future of Higher Education. **Steelcase, Inc.** which underwrote the David Snyder conference on Future Trends. **Lansing Community College, Michigan State University, Oakland University,** the **University of Michigan,** and **Wayne State University** for photographs used in this report.

And a very special thanks to:

Shirley Gray, Michigan Department of Commerce, who helped immeasurably as the writer of this final report.

Problem Statement

"It is no exaggeration to say that the struggle in which we are engaged may well be won or lost in the classroom."

—Gov. James J. Blanchard

The Governor's Commission on the Future of Higher Education was created by Governor James J. Blanchard in response to a series of critical problems affecting higher education. Any one of the problems was enough to cause concern; taken together, however, they jeopardized the system that has served Michigan's citizens so well for so many years.

In order to respond to the Governor's charge, the Commission focused on four core questions:

- How can higher education become more **affordable** and **accessible?**
- How can higher education maintain **diversity** and reduce unnecessary **duplication**?
- How can higher education contribute to Michigan's **economic revitalization**?
- How can the **quality** of higher education be enhanced?

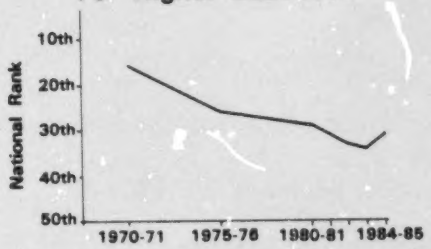
In examining these problem areas, the Commission held monthly public meetings; conducted extensive discussions with experts and consultants; held statewide public hearings; sought advice and data from a broad range of leaders and policymakers throughout the state; held student workshops; visited every four-year institution and many community college campuses; examined information shared by higher education sources across the country; and studied more than 20 comprehensive staff background papers. During the course of its work, the Commission also published a comprehensive discussion of the issues in *Agenda for Discussion: Midyear Progress Report of the Governor's Commission on the Future of Higher Education*.

The Commission also surveyed the views of citizens concerning Michigan colleges and universities by means of an extensive public opinion poll. The polling data reveal a high level of confidence in the system, and a great willingness to support it, coupled with an anxiety that its costs will soon put higher education out of the reach of too many of our students.

Through these activities, the Commission has concluded that although Michigan's system continues to enjoy national respect, it is a great system in jeopardy. There are many issues contributing to this problem:

- One of the main issues is **financial**. From fiscal year 1979 to fiscal year 1983, per capita state support to the four-year colleges and universities dropped from 14th in the nation to 37th in the nation. Although the decline was not as dramatic, community colleges also suffered losses. Due to the severe recession, the State of Michigan was unable to sustain support for colleges, community colleges and universities. Unanticipated midyear Executive Order reductions for several years made orderly planning impossible and forced institutions to make drastic adjustments in operations. The results were maintenance deferrals, equipment purchase cuts, and eroded support for fundamental activities. This occurred when many other states were increasing support for their systems of higher education.

Michigan's National Rank Per Capita State Appropriations For Higher Education

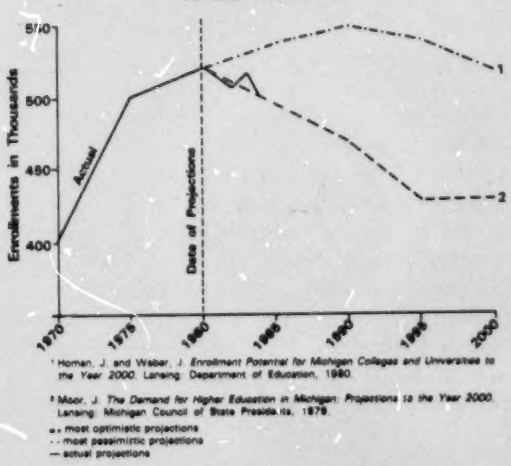


Although Michigan's investment per capita has begun to improve, it is still well below the national average.

"It is the perception of Michigan citizens that fewer than 20 percent can afford the full cost of sending a student to a public college or university without financial aid."

Attitudes and Opinions: Michigan Higher Education, Frank Magid Associates, 1984

Student Enrollment Projections To the Year 2000



[1] Homan, J. and Weber, J. *Enrollment Potential for Michigan Colleges and Universities to the Year 2000.* Lansing: Department of Education, 1980.

[2] Moor, J. *The Demand for Higher Education in Michigan: Projections to the Year 2000.* Lansing: Michigan Council of State Presidents, 1979.

a - most optimistic projections
- - most pessimistic projections
— actual projections

- **Political dynamics** have also threatened quality by compelling across-the-board reductions regardless of program value, costs or educational missions. At the same time, pressure was brought to approve new buildings, new programs and new schools resulting in further diffusing of state resources.

  To their credit, Michigan's colleges, community colleges and universities have started the systematic process of improving efficiency and redirecting the system. From 1980 to 1984, more than 100 programs were eliminated while 71 new and more relevant programs were offered in their place; some $70 million has been so redirected. This is the best indicator of the creativity and adaptability of our higher education system.
- In an attempt to maintain historical program quality and offerings, Michigan's colleges and universities were forced to raise **tuitions**. Beginning with a fee structure that was comparable to other Great Lakes states' institutions in the 1960s, fees started to rise dramatically throughout the system in the mid seventies. Today, Michigan tuitions are 42 percent higher than the average of the other states. Tuition rates at The University of Michigan, Michigan State and Wayne State are now among the highest in the nation for public universities. Faced with rising tuitions and static student aid programs, Michigan's families are struggling to finance higher education for their children.
- The baby boom that had fueled the system's successful expansion in the 1960s began to wane in the 1980s. In its *Midyear Progress Report*, the Commission estimated that demographic trends alone would reduce enrollments in the higher education system by at least 15 percent by the mid-1990s. Thus, the system faces a future of **declining enrollments.**
- Compounding the economic and demographic problems is the **fundamental change in Michigan's economy** over the last decade. Our economic base, supported by the automobile industry, is slowly but surely shifting. An education system which has contributed to Michigan's economic strengths—mining, agriculture, lumber, automobiles—is now faced with a new challenge: to help reestablish the diversity of Michigan's economy. Further, as Michigan's economy changes, its citizens are demanding greater access to relevant training programs and career choices.

The Commission's main conclusion is clear: public higher education in Michigan is at the crossroads. If nothing is done to address the various problems confronting the system, it is likely to face a future in which mediocrity is coupled with inaccessibility, a totally unacceptable result for Michigan's citizens. If sensible, imaginative and tough measures are taken now, however, the system can be everything it has been in the past and more.

It is important to note that under the leadership of Governor James J. Blanchard, Michigan has started to reinvest in its higher education system. But even with fiscal recovery, the state's future resources will be limited and must be used as efficiently as possible.

Our specific recommendations follow. We believe they represent a tough-minded and far-reaching basis for a policy debate that should build consensus for change—putting our minds together for Michigan's future.

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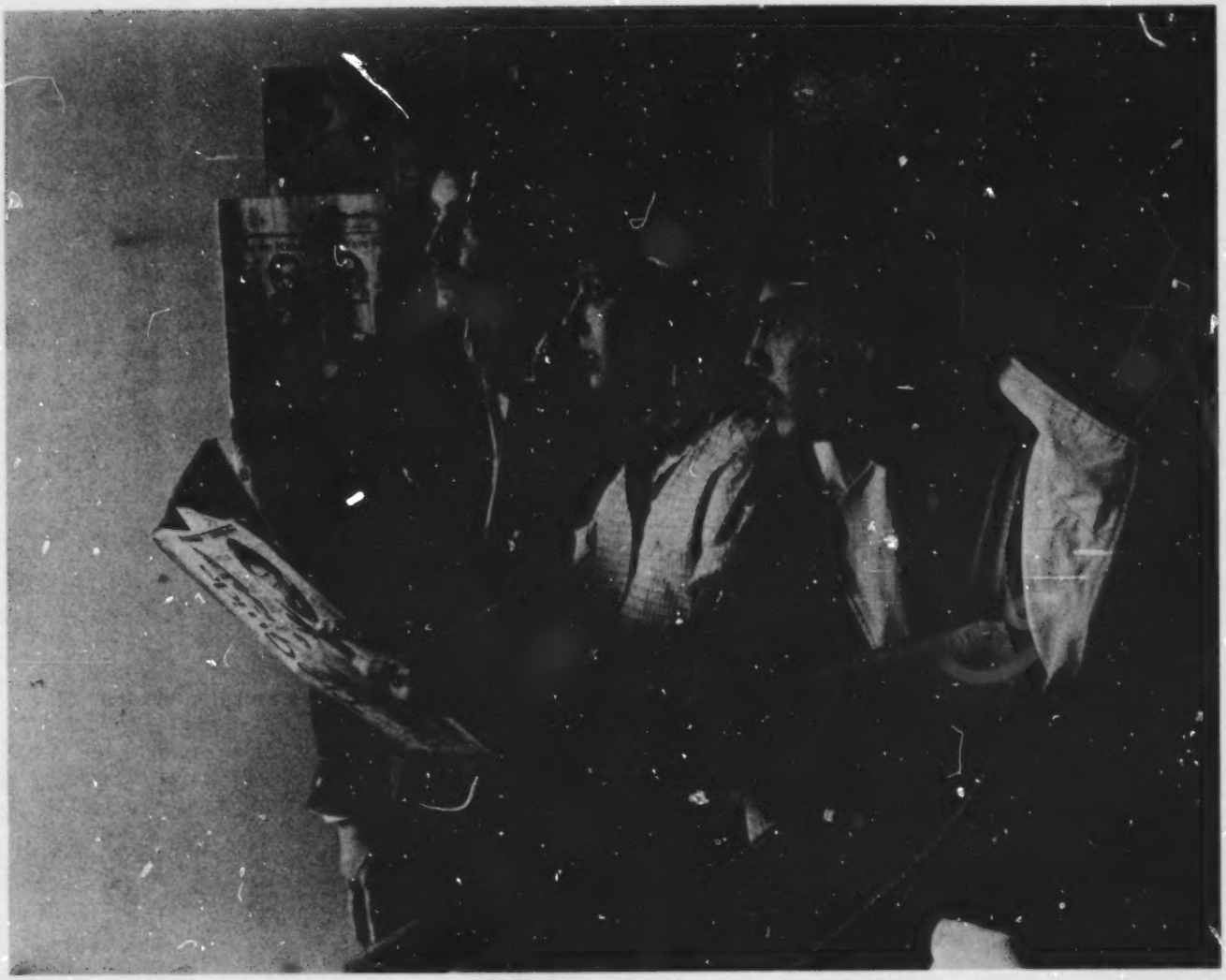


Investing in People

Introduction

Michigan's system of public higher education historically has ranked among the top in the entire nation. It has been characterized by a mix of high quality, broad access and relatively low tuition. But in recent years a combination of reduced state funding, increased tuition, cuts in state and federal student aid and impending enrollment declines has disturbed the historical balance among these elements. Our objective is to ensure that quality, access and relatively low cost remain hallmarks of Michigan's colleges and universities.

To do so, some understanding of the relationships between these elements is important. To sustain quality without providing the widest possible access is to abandon the touchstone of public higher education. On the other hand, to provide wide access to a higher education system of mediocre quality is to perpetrate a hoax on Michigan's citizens.

Reconciling these two objectives can come only through wise resource allocation. In the short run, the Commission calls for restraint on tuition increases; in the longer term, the Commission urges an increase in the percentage of total educational cost assumed by the state. The Commission also recommends a substantial increase in student aid.

If the basic policy recommendations are implemented, the Commission foresees a revitalized system of higher education in Michigan:

- It will be a system with enough student aid that both poor and middle-class students can compete fairly on the basis of ability for college admission.
- It will be a system with stable or falling tuitions and a predictable level of state support, thereby reducing the financial burden for students.
- It will be a system where Michigan's young people are encouraged to push their potential to the fullest and to create the best possible lives for themselves.
- It will be a system reaching out to diverse groups of students, filling classrooms and laboratories and broadening educational opportunity and access.
- It will be a system taking a lead role in strengthening teacher education, restoring the prestige of the education profession and its ability to teach teachers and students of tomorrow.
- It will be a system geared to attracting and retaining top-notch faculty and graduate students.

Quality is a tradition in Michigan education, as is low cost to students and their families. Michigan has always been able to assure both and must continue to do so.

Stabilizing Tuition and Expanding Aid to Students

RECOMMENDATION: THAT IMMEDIATE MEASURES BE TAKEN TO STABILIZE TUITION COSTS; THAT STUDENT FINANCIAL AID BE EXPANDED TO ASSURE ASSISTANCE IS AVAILABLE TO THOSE IN NEED OF IT; AND THAT COST NOT REMAIN A BARRIER TO EDUCATIONAL OPPORTUNITY.

In the 1984-85 school year, public college tuition in Michigan will cost more than the national average—from 20 to 42 percent more—depending on the type of institution. This is in spite of action taken by the Governor and State Legislature to restore education funding, coupled with a related move by all state colleges and universities to freeze tuition. Those actions were timely and necessary. They have halted temporarily a dangerous and seemingly uncontrollable rise in student costs in recent years. While the Commission recognizes that a dramatic reduction in tuition costs is not possible, it is crucial that tuition costs be stabilized at near present levels.

Therefore, **the Commission recommends that the Governor, the State Legislature and the governing boards at all Michigan public two- and four-year colleges and universities be charged with keeping future tuition increases under the inflation rate as measured by the Consumer Price Index (CPI).**

Stabilized tuition costs must be supplemented by a greatly expanded offering of financial aid programs. Data from Michigan colleges and universities indicate that nearly 90,000 student aid applicants cannot completely close the gap between college costs and available financing. The unmet need is great, but it can be reduced by programs of need-based scholarships, work study and grants for older students. **The Commission recommends that financial aid offerings be expanded in the following ways:**

- **Widen eligibility for Michigan's Competitive Scholarship Program awards by:**

  Returning the American College Testing (ACT) qualifying score to the traditional exam cutoff of 80 points; and

  Raising the competitive scholarship maximum award to $1,500 from the present level of $940.

  These two steps, requiring an increase in funding of approximately $15.5 million per year, will restore scholarship funding cut by recent budget constraints and broaden educational opportunity.

The Commission recommends, in addition, that three new undergraduate financial aid programs be authorized and funded:

- **A need-based Undergraduate Work Study Program to augment a currently inadequate federal College Work Study Program.** This will require an annual appropriation of $5 million to offer students at degree-granting colleges and universities greater opportunities through on-campus jobs. This program should be administered under the auspices of the Michigan Higher Education Assistance Authority;
- **A special scholarship program to attract high-achieving upper division undergraduates into teacher education programs.** The Commission recommends an annual appropriation of $1 million for this purpose. In light of the declining academic average of students majoring in education and a predicted increase in K-12 enrollments later in this decade, the need for recruitment incentives is great. A plan should be devised jointly by the State Superintendent of Public Instruction, the Presidents Council of State Colleges and Universities and its Council of Deans to carry out this program. Such a plan should be coordinated with new federal legislation which addresses the same concern;

- **A need-based General Grant Program (GGP) for older undergraduate students.** This program, which the Commission recommends be funded at $8 million in the first year, would focus on short-term vocational and technical job training and retraining at Michigan's degree-granting institutions, primarily for the soaring numbers of adult workers dislocated by the loss of manufacturing jobs. General grants would be available to both parttime and fulltime students. This program will be particularly supportive of the job training mandate given to the community college sector elsewhere in this report. Like the Work Study Program, the General Grant Program would be administered under the auspices of the Michigan Higher Education Assistance Authority.

There are three additional areas of student aid where policy modifications are recommended:

- **Non-need-based aid to private school students.** The existence of private colleges has historically assured Michigan citizens a diverse set of educational choices. However, all colleges in Michigan face the need to adjust to the implications of declining enrollments. As enrollments continue their downward trend, the need for all private students to receive non-need-based grants will also decline. Thus, **the Commission recommends that the growth in total appropriations for non-need state grants to private students and institutions not exceed the Consumer Price Index in any fiscal year.** In making this recommendation the Commission believes that needy students in private colleges will benefit from the expanded need-based financial aid programs proposed above, as will their counterparts in public institutions.
- **Student financial aid outreach.** In order to simplify the process of applying and qualifying for aid programs, it is necessary that all the information be more efficiently packaged and made easily available to teachers, counselors, and students. **The Commission, therefore, recommends that appropriate financial means (estimated to be $500,000) be allocated each year to the Department of Education to permit expansion of outreach and awareness efforts.**
- **In-district community college programming.** The issue of equal access to community colleges needs to be addressed. Currently, residents of counties outside of community college districts are charged an out-of-district rate to attend classes in a neighboring county. **The Commission recommends that the State Board of Education examine ways to expand in-district programming, and make recommendations to the Governor and the State Legislature.**

"A significant number of Michiganders perceive that students trying to obtain financial aid in order to attend public colleges or universities in Michigan have at least some difficulty in doing so."

—Attitudes and Opinions: Michigan Higher Education, Frank Magid Associates, 1984

RECOMMENDATION: THAT WOMEN, MINORITIES AND HANDICAPPERS BE ASSURED EQUAL ACCESS TO HIGHER EDUCATION FACILITIES AND PROGRAMS, WHETHER AS STUDENTS, FACULTY OR ADMINISTRATION, BY MEANS OF SPECIAL EFFORTS TO REMOVE BARRIERS TO THEIR PARTICIPATION.

While enrollment data show that access to higher education has broadened over the past two decades, there remain areas in which further progress is necessary to ensure full and complete educational opportunity.

In Michigan, minority and handicapper students, for example, are more typically to be found at public two-year colleges than in the state's four-year institutions. While the Commission recognizes efforts are underway to recruit minority and handicapper students from two-year colleges, **we call upon the four-year colleges to intensify their efforts to encourage community college students to transfer upon completion of associate degrees.**

Women, whose college enrollment has increased dramatically since 1970, tend to enroll in the traditionally female fields of education, arts and languages, health, home economics and library science, opting much less frequently for engineering, mathematics, and physical sciences. Black undergraduate enrollment, which rose in the early 1970s, is now leveling off. Very small numbers of black students enroll in graduate programs; even fewer complete graduate study and receive degrees. Hispanic enrollment and graduation rates show similar trends. Inadequate high school preparation, lack of support services, unfamiliar environment and lack of minority and handicapper faculty members are major contributing factors to the low retention rate of minorities and handicappers.

To increase the number of minority and handicapper graduates from Michigan's public four-year colleges and universities, **the Commission recommends the development of an incentive program for public institutions, rewarding them financially in proportion to their success in recruiting and graduating minorities and handicappers.**

To assure opportunities for women, minorities and handicappers, **the Commission supports the statutory requirement that all state-supported educational institutions submit affirmative action plans with specific timetables and implementation processes as a condition of public funding.** This information should be incorporated into the database (recommended later in this report) which will be shared with the Governor and the Legislature.

In addition, two- and four-year colleges and universities must expand attention to the special needs of program and environmental accessibility for handicappers. **Short- and long-term goals must be established to eliminate handicapper barriers to full participation.** This should occur jointly between institutional and state policymakers during the annual appropriations process.

In order to open participation of women, minorities and handicappers in faculty, administrative and professional positions, the Commission recommends:

- **Development of a statewide minority, women and handicapper vita bank in the Department of Education to assist in the recruitment of these under-represented groups.** This system would contain the resumés of candidates who wish to be considered for faculty and administrative positions at any of the state's educational institutions. Institutions would be required to utilize the vita bank as one source in fulfilling their applicant pool for a specific position. Successful models from other states are available for implementing this program.
- **Creation of a visiting scholars program for women, minorities and handicappers to promote equality and educational diversity within the institutions.** This program would assist in further advancing the goal of expanded access for these professionals along with providing role models for under-represented students. Private funding should be sought to make this program a success.
- **Creation of administrative internships for minorities, women and handicappers by the universities to further bolster administration ranks.** This program would increase these under-represented groups' visibility and broaden their professional contacts with the hope that institutions will then hire from these experienced ranks. An incentive program should be established in cooperation with the private sector.
- Presently, women, minority and handicapper faculty members and administrators earn considerably less than their white male colleagues for equal work. To assure equal pay for women, minority and handicapper faculty and administration, **an ongoing process should be developed that assures fair and equitable compensation with criteria that are carefully constructed and a system of regular review of salaries as a part of the appropriations process.** This information should be incorporated into the database.

As a comprehensive recommendation, the Commission urges the State Superintendent of Public Instruction, along with private organizations such as New Detroit, the NAACP, the Presidents Council and other appropriate organizations to take immediate action to ensure the implementation of the *Joint Task Force Report on Minorities, Females, and Handicappers in Michigan's Colleges and Universities.*

The Commission believes that these efforts to increase opportunities for minorities, women and handicappers combined with the expansion of financial aid and the improvement of K-12 preparation are critical to strengthening opportunities for minorities, women and handicappers within the higher education system.

RECOMMENDATION: THAT THE RECOMMENDED STATE BOARD OF EDUCATION HIGH SCHOOL GRADUATION REQUIREMENTS BE IMMEDIATELY IMPLEMENTED BY ALL MICHIGAN SCHOOL DISTRICTS; THAT THE FACTORS AND BARRIERS WHICH DETER MINORITIES AND HANDICAPPERS FROM PARTICIPATION IN HIGHER EDUCATION, AND WOMEN STUDENTS FROM TRADITIONALLY MALE-DOMINATED FIELDS OF STUDY, BE ADDRESSED BY STRONGER AND EARLIER COUNSELING; AND THAT HIGHER EDUCATION LEADERS WORK WITH THE K-12 SYSTEM TO ACCOMPLISH THESE GOALS.

The K-12 sector serves as a feeder system for postsecondary institutions. Seventy-two percent of Michigan high school students earn a diploma from high school. Data for 1982 show that 53 percent of these K-12 graduates pursued postsecondary study and that 90.5 percent of their advanced work was carried out, parttime or fulltime, at a Michigan college or university.

These numbers are substantial, but K-12's role needs further strengthening if all students are to have an opportunity for future success. In his State of the State message in January, 1984, Governor James J. Blanchard said: "If we expect more from our schools—and provide the proper environment—we will get it."

The Commission concurs. If K-12 does not demand more of students, higher education will continue to be inaccessible for many students. If K-12 does not nourish the talents of all our children from their earliest school days, then higher education cannot open its doors and its possibilities on a broadly representative basis. Choices made in the early school years affect not only the higher education system in Michigan but the larger society. The failure of large numbers of citizens to achieve upward mobility, financial independence, social integration, or to practice good citizenship has social and cost ramifications for all.

K-12 schools must start much earlier in the educational process to attend to the factors that determine whether children continue in school or drop out, and how they make career choices. Strong counseling, and a broader range of support services, would substantially affect the barriers which discourage children from completing high school, or from thinking of themselves as capable of succeeding in college. In addition, immediate steps must be taken to assure that grade schools and high schools are safe environments for learning.

To these ends, the Commission recommends that the State Superintendent be supported in working with local coalitions of business and community leaders, parents and educators—Education Excellence Coalitions—to assist local board members in implementing proposals contained in the *Blueprint for Action*.

"Secondary school curricula have been homogenized, diluted, and diffused to the point that they no longer have a central purpose."

—A Nation at Risk, 1983

With declining and changing enrollment trends, nontraditional students such as part-time students, older adults and returning students will increasingly fill the classroom places formerly taken by the traditional 18-to-22-year-old population.

The Commission feels strongly that both two- and four-year public institutions must seize the opportunity to bring large numbers of nontraditional learners, for the first time, into the ranks of the college-educated. This is an effort that must be accomplished through more effective communication between higher education and the K-12 system. The State Superintendent and the State Board of Education are in an excellent position to see that these efforts occur.

Reforming Teacher Education

RECOMMENDATION: THAT TEACHER EDUCATION PROGRAMS BE IMPROVED THROUGH CURRICULAR CHANGES AND TIGHTER ADMISSION CRITERIA; AND THAT Ph.D. LEVEL TEACHER EDUCATION AND RESEARCH BE THE PRIMARY RESPONSIBILITY OF DESIGNATED RESEARCH UNIVERSITIES.

Not only students, but teachers must receive better preparation to meet the demands of a fast-changing world. Colleges teach teachers, who in turn teach the elementary, middle and high school students who will attend the colleges. Strengthening this link in the chain of training will revitalize the entire educational system, and restore popular respect and support to the teaching profession.

While the supply of teachers is declining as teachers leave the classroom in large numbers and fewer college students choose teaching careers, an increased demand for elementary school teachers will begin as early as 1985, fueled by a modest increase in the birthrate which began in the early 1980s. Further there appears to be a shortage of trained secondary teachers in the critical areas of math, science and foreign languages. **To assure a supply of qualified teachers for the remainder of this decade, the Commission recommends that colleges of education:**

- **START RECRUITING EARLY**—Recruiting should start in high school and middle school years, targeted at high achievers. Special incentives could also be offered to talented upper-division college students to enter teaching specialties of short supply. Such incentives could include scholarships, as previously recommended in this report, and loan forgiveness programs. Expert counseling, based on occupational supply and demand data, could also alert students to subject areas of opportunity and steer them away from crowded or low-demand teaching areas.
- **INTENSIFY THE TEACHER TRAINING PROGRAM**—Teachers in training should spend their first four years in college acquiring a broad liberal education and concentrating on their major area. They should spend a fifth year in supervised practice teaching. At the end of this fifth clinical year students should have to demonstrate teaching competence in order to be certified. The proposed reforms are modeled on those outlined by the State Board of Education's *Better Education for Michigan Citizens: A Blueprint for Action*. In support of these recommendations, the Commission also urges the Board, in its capacity as regulator of the state's colleges of education, to accelerate its work on revision of the certification code.

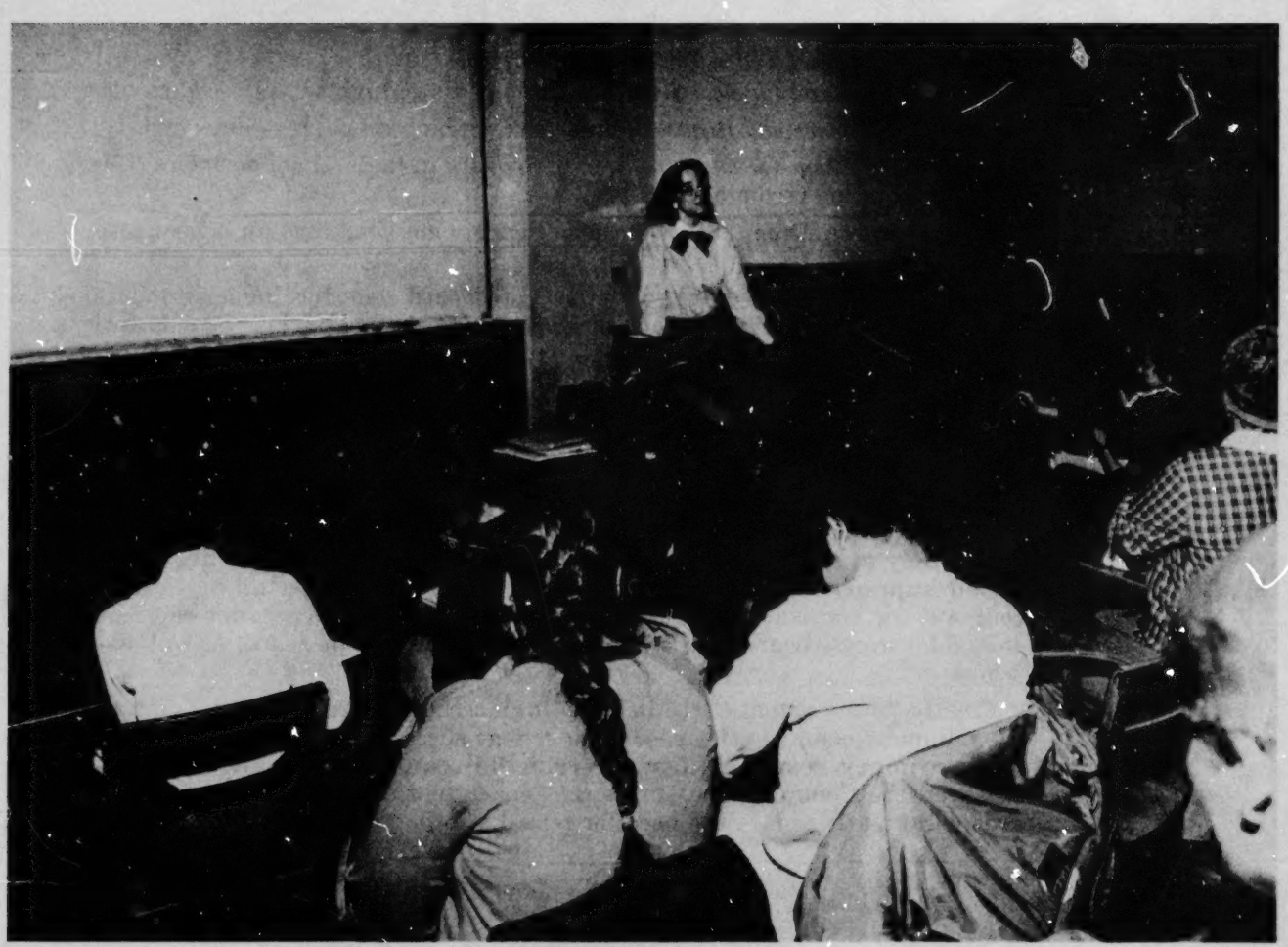
"It is foolhardy to expect students to achieve their best if their teachers are not themselves among the best and brightest. Yet, national and Michigan studies show the most promising young people seldom plan to enter teaching."

—Better Education for Michigan Citizens: Blueprint for Action, 1984

"Persons preparing to teach should be required to meet high educational standards, to demonstrate an aptitude for teaching, and to demonstrate competence in an academic discipline. Colleges and universities offering teacher preparation programs should be judged by how well their graduates meet these criteria."

—A Nation at Risk, 1983

- **TARGET TEACHING RESEARCH**—Two of Michigan's research institutions are conferring most of the Ph.D.s in education. The Commission recommends designation of these schools as the state's centers for teaching research. As the primary sites for advanced doctoral and scholarly work, these institutions should share their research and should assist in coordinating the work of the other colleges and universities in undergraduate teaching, masters education and professional development through the Council of Deans. Further, the State Superintendent should be supported in seeking stronger standards of program review for all teacher education programs.
- **ENHANCE CONTINUING TEACHER EDUCATION**—Teaching quality is enhanced by life-long learning opportunities. Unless teachers can continue the professional development process throughout their careers, they face stagnation and obsolescence. Like other professionals, teachers need time to renew themselves by completing substantive, research-based courses in pedagogy and subject matter. The designated research universities discussed above should establish institutes specializing in research on teaching and learning and work closely with the general state universities (as defined in the "Roles and Missions" section of this report) to provide high-quality professional development. Work should also be done to coordinate state policies with the new federal legislation authorizing funding for teacher leave time for retraining and instructional development.



Adopting Minimum Admission Standards

RECOMMENDATION: THAT ALL THE STATE'S FOUR-YEAR COLLEGES AND UNIVERSITIES ADOPT MINIMUM ADMISSION STANDARDS THAT ARE COMPATIBLE WITH THE HIGH SCHOOL GRADUATION REQUIREMENTS RECOMMENDED BY THE STATE BOARD OF EDUCATION; AND THAT LOCAL BOARDS OF EDUCATION IMMEDIATELY IMPLEMENT THESE GRADUATION REQUIREMENTS.

The State Board of Education has recommended, and the Commission concurs, that all high school students complete a specific set of core requirements in order to graduate; and that students planning postsecondary study satisfy additional course requirements. The Presidents Council of State Colleges and Universities recently summarized the courses and competencies tied to college success which are supportive of this recommendation.

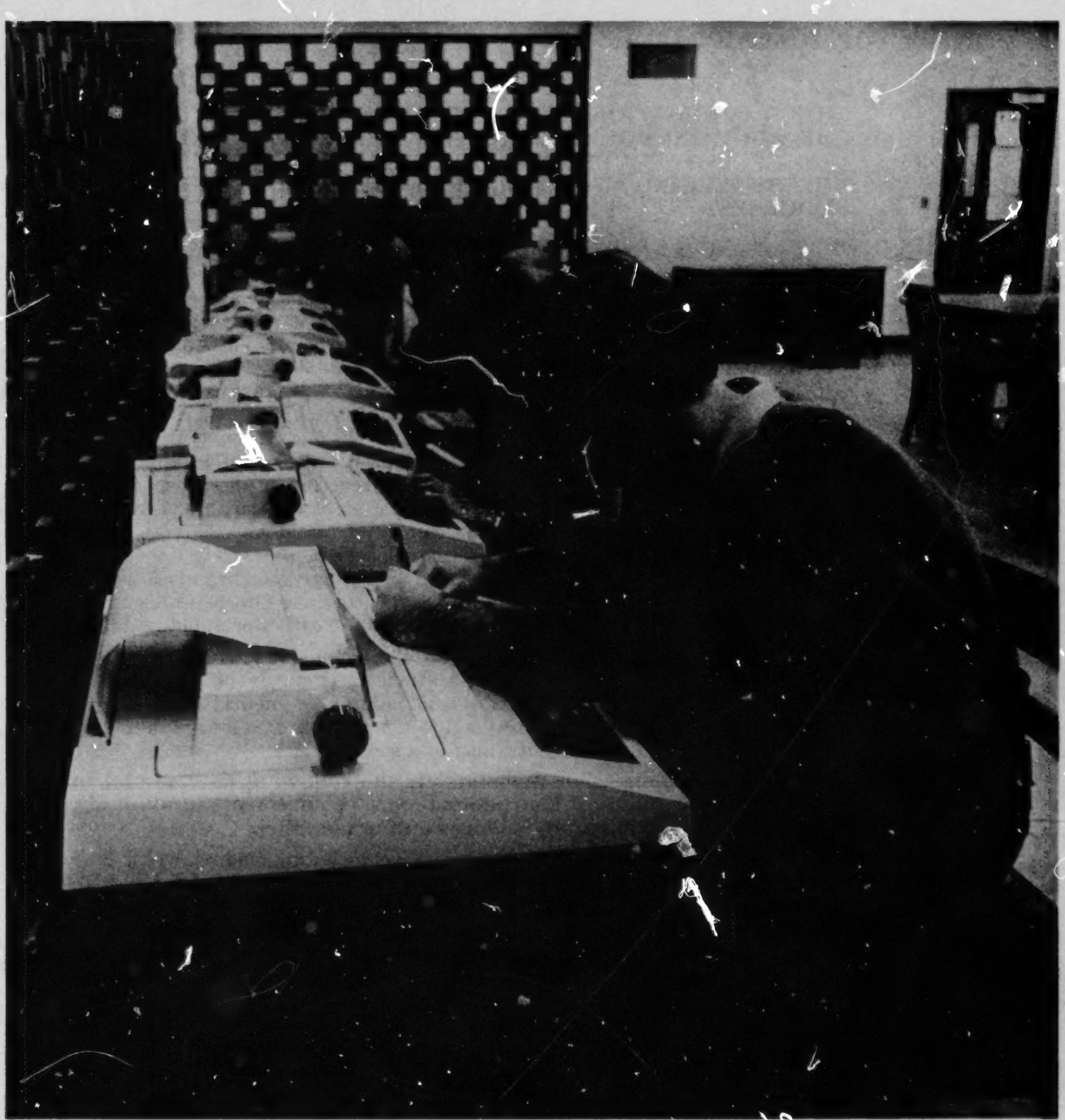
The State Board's graduation proposal and the Presidents Council competencies, taken together, provide essential guidance for secondary school students, teachers and counselors, as well as community college students intending to go on to a four-year program. A synthesis of both guidelines is presented below.

- ***English and Communication Skills,*** including reading, grammar, literature, writing, speaking, listening and critical thinking. Four years in high school recommended.
- ***Mathematics,*** including algebra, geometry and pre-calculus. Three to four years in high school recommended.
- ***Biological and Physical Sciences.*** Three years in high school recommended.
- ***Social Science and History.*** Three years in high school recommended.
- ***Foreign Language and Fine Arts.*** Two years in high school or before college graduation recommended.
- ***Computer Literacy,*** hands-on experience. One year in high school recommended.

The K-12 curriculum outlined by the State Board embodies the basic mental skills judged essential to success in the contemporary workplace or classroom. It anticipates more adequately the needs of high school students than the present statutory minimum of one civics course.

Enactment of stricter high school graduation requirements is, of course, the responsibility of local boards of education. However, adoption by the state's four-year schools of minimum admission standards, tied to high school graduation requirements, would serve to galvanize community-wide awareness of the need for immediate action. In this regard, **the formation of Education Excellence Coalitions recommended previously in this report would undoubtedly be helpful in generating broad-based support for such reforms.** To ensure efficient dovetailing of high school course work and college competencies, the minimum college admission standards should be stressed earlier in a student's career—in middle school as well as in high school.

Finally, to the extent that Michigan high school graduates are not equipped with the minimum competencies needed for college success, **community colleges should have primary responsibility for remedial course work.** Over the long term, however, the Commission assumes that enactment of strict K-12 graduation standards will greatly reduce the need for remediation.



"The people of the United States need to know that individuals in our society who do not possess the levels of skill, literacy, and training essential to this new era will be effectively disenfranchised, not simply from the material rewards that accompany competent performance, but also from the chance to participate fully in our national life."

—A Nation at Risk, 1983

Defining the Instructional Core

RECOMMENDATION: THAT A MINIMUM BASIC INSTRUCTIONAL CORE BE ADOPTED FOR UNDERGRADUATES AT ALL THE STATE'S COLLEGES AND UNIVERSITIES; AND THAT COMMUNITY COLLEGE STUDENTS SEEKING AN ASSOCIATE DEGREE ALSO COMPLETE A CORE OF COURSES.

A primary expectation of higher education—one endorsed by the Commission—involves the preparation of individuals to do more than just apply technical skills in the workplace. In an attempt to instill competencies, as well as expose individuals to our society's intellectual traditions, most bachelor and associate degree programs in Michigan involve a mixture of coursework in the arts, humanities, basic skills and an area of professional specialization.

The competition between professional training requirements and liberal arts coursework for the finite credit hours available in each student's curriculum has been intense. As students emphasize career orientations and downplay the humanities, the ability to achieve a liberal arts education is greatly weakened. In light of the need for balance, faculty, employers and citizens are reacting to the prospect of narrowly-educated graduates by calling for a curricular structure capable of instilling educational breadth, depth of values and flexibility for students. The core curriculum—a general education concept where a central core of courses is pre-selected for all students—is receiving renewed attention. Such activities are already occurring at several institutions and the Commission supports these efforts. Colleges and universities can and must resist the pressure to increase career-oriented requirements.

Educators can be very effectively assisted by employers who are stressing a well-rounded education as one of the qualifications for employment. The future workplace will demand truly mobile, flexible and adaptable mental capacities. Students equipped with problem-solving skills fare much better in a fast-changing work environment than those narrowly trained in a specialty.

Thus, the Commission recommends the following as essential minimum outcomes of mandatory instructional core requirements at all of Michigan's public colleges, community colleges and universities:

- Fluency in use of the English language, including reading, writing, speaking and listening, as well as comprehension of a foreign language.
- Understanding of the history of civilization, with an emphasis on the Western world.
- Knowledge of man, the biological world, the physical sciences and scientific reasoning.
- Awareness of the nature of a free society, with an emphasis on ethics and the responsibilities of citizenship.
- Exposure to the arts and humanities.
- Facility in mathematics and computer literacy.
- Skill in critical thinking and problem solving.

The Commission believes that achievement and competence can be assured by successful completion of core and major courses, rigorous grading practices and increased use of essay examinations.

Finally, the Commission recognizes, as was acknowledged in the recent *Report of the Study Group on the Conditions of Excellence in American Higher Education,* **that it may be necessary to extend the length of undergraduate education unless national and state bodies refrain from increasing the number of non-liberal arts credit hours required for accreditation in many professional disciplines.**

Maintaining Strong Graduate Education

RECOMMENDATION: THAT STATE POLICY RECOGNIZE THE NEED FOR QUALITY GRADUATE EDUCATION THROUGH STRONG INSTRUCTION AND ADEQUATE FACILITIES, AND THAT ADEQUATE FUNDING BE PROVIDED FOR FINANCIAL AID TO GRADUATE STUDENTS IN HIGH-NEED FIELDS.

In the days when Michigan was one of the few states supporting a world-class public research and teaching structure, attracting the finest graduate students was relatively uncomplicated. Now, however, every state in the union is a contender and the competition for graduate students is intense. Increasingly it is necessary to offer a good financial package, a challenging research opportunity, and attractive fellowships in order to bring to Michigan those capable of break-through research and innovation.

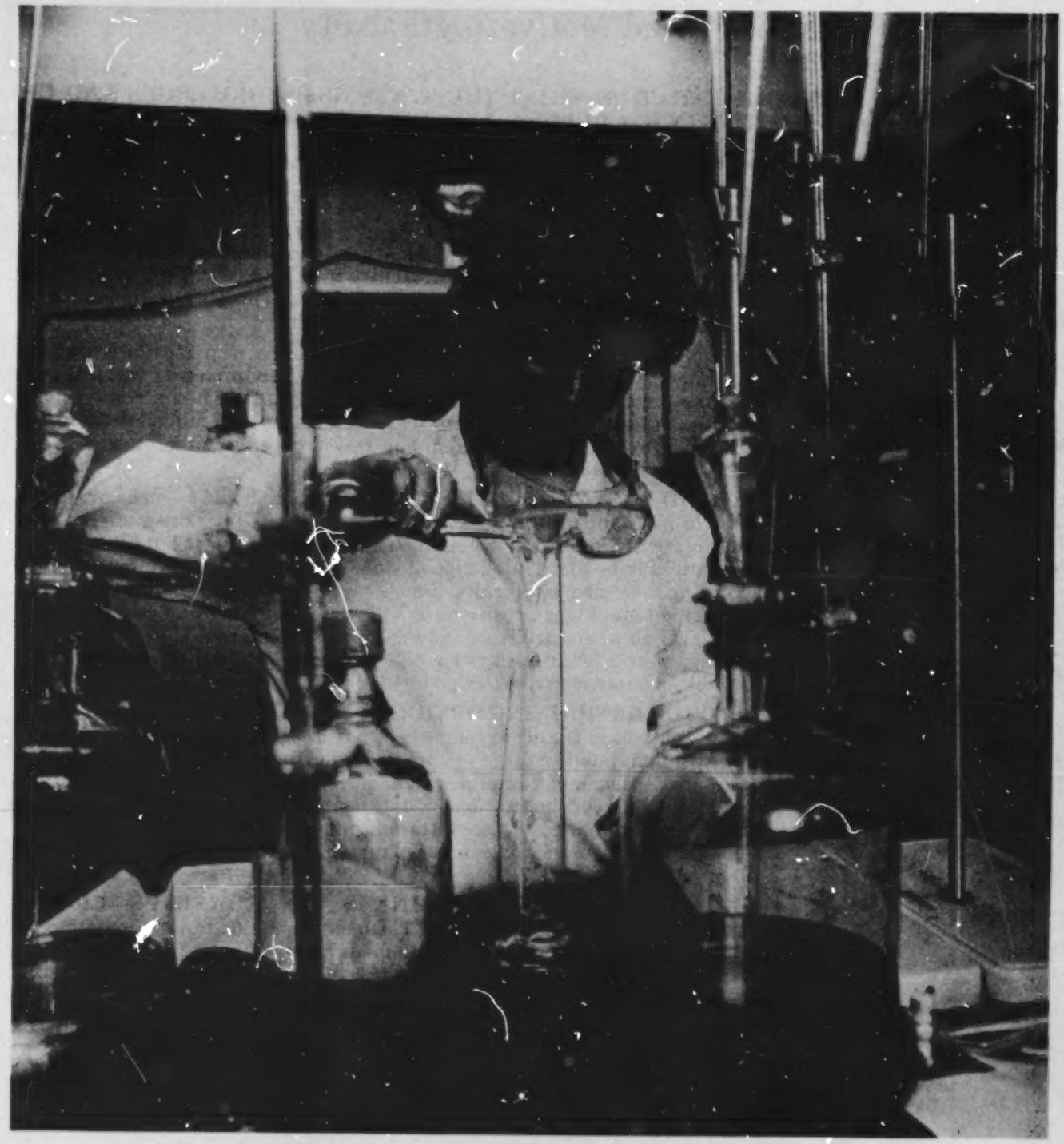
An informal survey of 12 department chairpersons in three Michigan research institutions highlighted this problem. Talented graduate students apply to institutions having strong faculty, good equipment and excellent reputations. In addition, it was stressed, recruitment success hinges on student costs and the terms of financial aid.

The ability of the Michigan's institutions to meet this competition is limited. In contrast to the full tuition waivers offered by many competing schools, Michigan's research institutions have only been able to reduce out-of-state tuition to in-state levels. Multiple-year commitments are offered by many competing schools, while Michigan institutions reported problems offering support such as assistantships for more than one year at a time. Finally, in the physical sciences, a lack of research fellowships means that top students cannot be lured on the basis that they will be relieved from teaching responsibilities.

The Commission has detailed a complete strategy for maintaining and enhancing Michigan's research leadership in a subsequent section of this report. Included are **state-funded graduate fellowships, endowed faculty chairs, and enhanced research support.**

Further, the Commission urges that full attention be given to the nonfinancial aspects of a strong graduate program, including affirmative action to make graduate school opportunities available to all qualified individuals, and assuring that graduate students seeking faculty status are skilled in teaching as well as in their area of scholarly expertise.

Doctoral students are the research leaders of tomorrow. Outstanding graduate students invest their energies and knowledge in institutions boasting strong faculty, sophisticated research equipment and up-to-date library resources. Fresh graduate talent should be treated as a serious and ongoing priority. Assuring the necessary resources is essential to that commitment.



"The health of the graduate education and research enterprise is one of the most significant issues this society faces."

—Signs of Trouble and Erosion: A Report on Graduate Education in America, National Commission on Student Financial Assistance, 1983

Attracting, Retaining and Motivating Faculty

RECOMMENDATION: THAT THE STATE ASSIST COLLEGES AND UNIVERSITIES IN RECRUITING AND RETAINING FACULTY; IN OFFERING CAREER OR EARLY RETIREMENT OPTIONS TO FACULTY; AND THAT THE STATE CONTINUE ITS COMMITMENT TO STABLE FUNDING TO ASSURE RESEARCH AND ACADEMIC EXCELLENCE.

Michigan's institutions are short of faculty in many technical and scientific disciplines, and typically oversupplied with faculty in nonscientific areas. At the time colleges and universities most need the flexibility to shift faculty resources quickly to new areas of demand, they are forced to cope with the pressures of enrollment decline, program reductions and fluctuating levels of state support.

The Commission views this combination of circumstances as particularly threatening to the state's academic future. **The Commission recommends the following programs to stem the faculty exodus from Michigan that has already begun, and to enable institutions once again to attract, retain and motivate faculty by offering new tenure possibilities, a strong research environment, and opportunities for career growth:**

- **EXPAND EARLY RETIREMENT**—State funds should be made available to colleges and universities to augment the benefit packages offered to tenured faculty interested in early retirement. As much as $2 million may be required to be distributed among state institutions on a pro rata basis according to numbers of faculty. Such a program would assist institutions in making tenure track positions in both the liberal arts and in technical fields available. Young faculty and doctoral students would be attracted, once again, to a Michigan system offering tenure possibilities and opportunities for professional growth.
- **PROVIDE RETRAINING OPTIONS**—Institutional leaders should rely on alternatives to faculty layoffs where possible. The waiver of tuition by any Michigan public college or university for tenured faculty seeking to study higher-demand disciplines should be seriously considered. Faculty exchanges between institutions could also offer possibilities when programs are terminated. When retraining or transfer is not feasible, the Commission encourages on-campus planning programs for faculty seeking career changes.
- **DEVELOP FACULTY-BUSINESS INTERNSHIPS**—Cross-fertilization between academia and business should be fostered by a program of faculty internships with business, jointly supported by business and academia. Higher education administrative internships modeled after the successful American Council on Education Training Fellowships should also be offered. In both cases, minority, female and handicapper faculty should be given special consideration when selecting interns. Colleges and universities are also encouraged to invite business and government leaders to undertake parttime teaching responsibilities on their campuses.

"Faculty are the core of the academic workforce, and their status, morale, collegiality and commitment to their institutions are critical to student learning."

Involvement in Learning: Realizing the Potential of American Higher Education, National Institute of Education, 1984

- **STABILIZE STATE INSTRUCTIONAL AND RESEARCH SUPPORT**—Faculty should be assured the tools and facilities to pursue their areas of inquiry. The state should upgrade the quality of the institutional and research environment by reaffirming its commitment to state higher education funding, upgrading of instructional and major research equipment, creation of Centers of Scholarly Excellence as recommended later in the report, and maintenance and renovation of existing facilities.
- **EMPHASIZE TEACHING IN TENURE EVALUATIONS**—Tenure evaluations should allow talented instructors to emphasize classroom activities above published work. Mini-sabbaticals for course preparation should also be instituted as a means to make college teaching more effective.
- **CREATE STATE-FUNDED ENDOWED FACULTY POSITIONS** — As a result of fluctuating state appropirations, Michigan is losing its ability to attract and retain key faculty. An exodus of research faculty is becoming evident as competing institutions and private industry succeed in luring faculty in areas of scarce talent away from Michigan. During exit interviews, top faculty are noting the attractiveness of resources offered by states where they are relocating. To attract outstanding researchers and prevent a migration of key faculty from Michigan, the Commission recommends a program of endowed chairs be established, as described later in this report.

"Like top talents in sports and entertainment, stars in the academic world go where the action is, where the money is right and where their abilities are nurtured to new heights."

—The Detroit News, 1984

Updating Instructional Equipment and Resources

RECOMMENDATION: THAT AN ADDITIONAL $12 MILLION BE APPROPRIATED ANNUALLY FOR FIVE YEARS TO RESTORE AND UPGRADE INSTRUCTIONAL EQUIPMENT.

Sophisticated instructional equipment is now used in nearly all curricula at the community college, college and university levels. During the late 1970s and early 1980s, reductions in state appropriations resulted in reduced equipment expenditures and a backlog of equipment needs that remains today.

Complex scientific equipment is no longer used only to conduct basic research; it is now frequently used in the classroom. Expensive scientific equipment is used to teach, for example, vocational technology and related industrial courses in community colleges. In chemistry, at the college and university level, analytical instrumentation needs have expanded greatly. In the social sciences, there is an increasing reliance on computers to manipulate vast databases. Similarly, the information explosion has strained library resources.

While the need for up-to-date equipment has increased, expenditures for nonsponsored, research-related equipment declined significantly during the recent fiscal difficulties.

Currently, it is estimated that the four-year public colleges spend $24 million annually on equipment. Commensurate amounts are being spent by community colleges. These purchases reflect the continuing need for computers, laboratory equipment, expensive instruments in the performing arts and communications, vocational technology and the many needs for working with students in a diverse system.

Critical needs exist for more sophisticated and updated equipment in all areas of instruction. The Michigan Society of Professional Engineers has estimated, for instance, that the laboratory equipment needs for the engineering schools alone could exceed $70 million. In another example, one of the state universities has documented a critical need for the replacement of industrial arts equipment that is substantially out of date. These needs are being underscored as, increasingly, employers are highlighting the need for students to be trained on up-to-date equipment.

In order to address the backlog of equipment needs that the four-year colleges and universities face, **the Commission recommends that a special allocation of $12 million be made annually for five years to improve their equipment-purchasing power by 50 percent.** This fund should be allocated according to a formula based on each institution's current depreciated equipment inventory as reported to the state. **For community colleges, the Commission recommends that the equipment allocation newly placed in the formula for 1984-85 be sustained as a comparable recognition of the needs in that sector.**

Focusing on Priorities

Introduction

A relatively large and rich state, Michigan plainly possesses adequate resources to sustain a superior system of higher education. To do so through the end of the century, however, will require overcoming three difficult challenges:

- **OVERALL FUNDING LIMITATIONS**—It is no secret that Michigan's state income fluctuates with the business cycle. Although Governor Blanchard's recent budgets have provided important gains in appropriations for higher education, overall funding is still insufficient in critical areas because Michigan's revenue decreased in the recent recession. Further, higher education faces increased competition from other sectors of public responsibility. Balancing the claims of social services, transportation and other infrastructure needs, the environment and public protection from crime with those of education requires wise and farsighted allocation decisions.
- **UNFOCUSED RESOURCE ALLOCATIONS**—Resources available to higher education have not been allocated as well as they might. In some cases, cuts or increases have been imposed as a flat percent across the board. The result has been an allocation system that penalizes quality and sustains mediocrity. In some cases, decisions have been driven by parochial politics, both legislative and academic. The results have led to unnecessary duplication in programs and damaging dilution in the quality for existing programs.
- **ENROLLMENT DECREASES**—Unlike the decade of the 1960s when our higher education system expanded to meet the needs of the baby boom, the decade of the 1980s will see a decline in college-age population. The Commission has estimated that enrollment decline could range as high as 15 percent by the mid-1990s. This process is already under way; colleges and universities all across the state have reported enrollment levels down from those of a few years ago.

A main objective of this report is to meet these challenges by setting out ways to better focus increasingly scarce resources within our higher education system. The Commission's recommendations in this regard are far-reaching. The comprehensive institutional role and mission statements are, we believe, a first for Michigan. A policy-driven funding formula could reduce dilution of scarce resources; a consistent expense-recording system will provide information to determine accountability. Taken together, this set of recommendations makes up the "strategic process" which the Commission called for in its interim report. Without resorting to superficially appealing devices such as a super board, the Commission believes that it has provided the Governor and the Legislature with a set of flexible but realistic tools with which to shape higher education priorities in Michigan.

Identifying Institutional Roles and Missions

RECOMMENDATION: THAT THE OVERALL MISSION OF MICHIGAN'S HIGHER EDUCATION SYSTEM AND THE ROLE OF EACH INSTITUTION BE CAREFULLY AND EXPLICITLY DEFINED; AND THAT FUTURE STATE DECISIONS TO FUND OR NOT FUND EDUCATIONAL PROGRAMS BE BASED ON THESE ROLE AND MISSION STATEMENTS.

Our higher education system must adapt to a changed world. Reduced state revenues and federal funding coupled with increased claims from other sectors for state support mean that educational resources will remain constrained. Demographic changes mean that Michigan's college enrollment will be reduced for years to come. Further, the market demand for educational programs will undergo shifts into the 21st century.

The system has already made progress in reordering internal priorities. Despite these efforts, we must face the fact that no longer can every higher education institution undertake to play a multiplicity of roles. For every institution to serve all needs is to ensure that no institution plays well the particular role for which it is best suited.

Responding to the need for more concise institutional roles and missions, the Commission kept several points in mind. First, the phrase "differing roles" does not imply better or worse, or more important or less important roles. Within the overall context of Michigan's higher education system, for example, the role of community colleges is as distinctive—and as important to be carried out with excellence—as the role of universities.

Second, the Commission recognizes that there exist variations and exceptions from any theoretical system. Nevertheless, the Commission was impressed at how smoothly various individual institutions fitted into distinctive roles. The basis for the classification rests on observed facts, not on artificial theory.

Finally, the Commission recognizes the difficulty individual institutions will have in defining roles from a statewide perspective, or making the decision to cut or shift programs and reduce staffing levels. The effort will require the highest degree of leadership and cooperation of which individuals and institutions are capable. Further, it will require the active participation of state leaders and the public if such a bold strategy is to be accomplished.

Given these considerations, **the Commission recommends a classification system be adopted by state policymakers as the framework for future funding decisions. This classification assigns specific program roles, degree levels and regional access responsibilities to the public two-year and four-year institutions:**

"The institutions that define their mission most clearly, target their students best, and build on their strengths are those most likely to survive."

Detroit Free Press, 1984

- **Public Community Colleges**

  Roles: Provide broadly distributed core curriculum and locally accessible general and technical undergraduate instruction for the first two years past high school. Primarily responsible for providing job training, technical instruction and employee upgrading. Provide remedial instruction for adults lacking college entrance skills, gateway access to four-year institutions, and continuing education opportunities for adults.

  Degrees: Certificates and Associate degrees.

  Student body: Local; predominantly nonresidential.

  Institutions: All community and junior colleges.

- **Technical Colleges**

  Roles: Provide high-market demand, mainly technical, two- and four-year undergraduate instruction.

  Degrees: Primarily baccalaureate; some associate; few masters.

  Student body: Regional; both residential and non-residential.

  Institutions: Ferris State College, Lake Superior State College.

- **Regional State Colleges**

  Roles: Provide broadly based and regionally accessible general four-year instruction. Provide limited, highly focused, high-market demand nontechnical business and professional graduate training; provide regional public service and economic development assistance.

  Degrees: Baccalaureate; limited nontechnical business and professional masters.

  Student body: Regional; predominantly nonresidential.

  Institutions: Grand Valley State College, Oakland University, Saginaw Valley State College, University of Michigan—Dearborn, University of Michigan—Flint.

- **General State Universities**

  Roles: Provide comprehensive four-year undergraduate instruction. Provide broadly-based business, professional and educational masters instruction. Provide extension programs through the masters degree in respective areas of the state. Provide technology transfer and economic development assistance to business and industry.

"One can say with certainty, however, that the competition among colleges will get much stiffer, and that a poorly prepared and poorly directed institution will be highly vulnerable to institutional decline, even closure."

David W. Breneman, The Coming Enrollment Crisis: What Every Trustee Must Know, 1982

Degrees: Baccalaureate, masters.

Student body: Regional and statewide; predominantly residential.

Institutions: Central Michigan University, Eastern Michigan University, Northern Michigan University, Western Michigan University.

- **Nationally-recognized Research Universities**

  Roles: Provide advanced graduate and professional instruction and comprehensive four-year undergraduate instruction, often leading to graduate admission. Conduct basic and applied research. Focus of basic and applied economic development and social research and technology transfer. Location of professional schools.

  Degrees: Baccalaureate, masters, professional, doctorate.

  Student body: National, international, state; mainly residential.

  Institutions (in alphabetical order):

  * Michigan State University: Land grant research university with peer group the top American land grant universities.
  * Michigan Technological University: Extractive industry (mining, metals, wood) engineering-focused university with peer group the top public American engineering and mining-focused institutions.
  * The University of Michigan: Comprehensive research university with peer group the top American public and private universities.
  * Wayne State University: Urban research university in development, with peer group the American public urban universities.

A series of policy statements and implications stem from this classification:

- Responsibility for the various levels of instruction should be funded only for individual institutions as they fall within a given sector of the proposed classification system. As the only Carnegie classified "doctoral granting" institution, Western Michigan University's doctoral programs should be reviewed for possible continuation based upon cost effectiveness, uniqueness and quality. However, the Commission recommends that no new programs inconsistent with the classification be funded.
- The Commission recognizes that the State of Michigan has an obligation to provide geographical access to students wishing to pursue two-year and four-year instructional programs. Thus, while some institutions described as regional state colleges have repeatedly been mentioned as candidates for closure, the Commission finds that such action would, at this time, be arbitrary and overlook the services such institutions currently are providing their respective regions.
- The classification system assigns responsibility for basic and applied research to the four institutions with the largest amount of sponsored research activity to prevent dilution of state funds for research. This classification, however, should not be used to diminish the efforts of the other state universities, regional and technical colleges and community colleges in technology transfer and assistance to business and to their communities.

Michigan's system of higher education needs a policy basis on which resource allocations can be made and institutional performance judged. The recommended classification system provides the means for accomplishing this goal.

Developing A Comprehensive Higher Education Database

RECOMMENDATION: THAT A UNIFORM DATABASE BE IMPLEMENTED, INCLUDING ALL THE STATE'S PUBLIC AND PRIVATE TWO- AND FOUR-YEAR COLLEGES AND UNIVERSITIES, TO ASSIST IN STATEWIDE POLICY DECISIONS; AND THAT THE DATABASE INCLUDE OCCUPATIONAL SUPPLY AND DEMAND DATA AS WELL AS POSTGRADUATE PLACEMENT DATA TO GUIDE STUDENT CAREER COUNSELING AND PROGRAM PLANNING.

Higher education decisionmaking in Michigan must be done on a systemwide basis if it is to be effective. But at present, higher education policymakers lack a continuous comprehensive source of data for timely discussion of complex issues. In fact, the Commission found an astonishing lack of data when it began its deliberations.

In order to provide this critical information, the Commission recommends the expeditious development of a comprehensive database, to be housed in the Michigan Department of Education, developed in cooperation with the Departments of Commerce, Labor, Management and Budget, and the legislative fiscal agencies. This data should be easily accessible on computer statewide with information maintained and collected in three broad areas:

- **All aspects of Michigan's higher education system,** including student enrollments, high school graduation and postsecondary planning data, financial aid, representation of minorities, women and handicappers; institutional data, including finance and expenditure, consumer cost, and academic programs. **The four-year institutions should adopt a uniform budgeting and accounting procedure as part of this process;**
- **Occupational supply and demand data** organized by occupation and field of study to guide student career counseling and program planning activities, as well as statewide policymakers.
- **Placement data on college and university graduates,** including employment status by degree level and field of study, and earnings by geographic location. This collection of data would facilitate greater communication between employers and institutions, and provide essential career planning to students. The development of this area could be based on the successful model at Michigan State University.

Adopting Policy-Based Funding Formulas

RECOMMENDATION: THAT STATE AID TO PUBLIC TWO- AND FOUR-YEAR COLLEGES AND UNIVERSITIES BE ALLOCATED USING A FORMULA DESIGNED TO ACHIEVE STATE GOALS AND RECOGNIZE ENROLLMENT CHANGES AND INSTITUTIONAL COST VARIATIONS.

As was noted at length in the Commission's *Midyear Progress Report*, state funding for colleges and universities is now distributed largely without regard to enrollment changes, individual program costs, state goals or institutional roles.

Variations in state funding per student clearly demonstrate the outcome of the current approach. Per student state aid at the general state universities varies from $2,200 to $3,500. Similar variations exist in the other categories of state four-year schools.

Even though the college and university annual appropriation act states, "The appropriations made in this act are based upon a legislative model for determining the financial needs of higher education," state aid has varied only modestly from simple across-the-board increases or decreases. In fiscal year 1984, for example, enrollment fluctuated from an increase of 12 percent to a reduction of 5 percent, but each institution received about a 4 percent state funding increase over actual fiscal year 1983 levels. Finally, in addition to its failure to correlate the distribution of state aid with the distribution of enrollment, this funding method fails to recognize differences in institutional roles or to encourage the implementation of state goals.

In its fiscal year 1985 appropriation, the Legislature began to address this problem at the community college level by developing and appropriating a policy-based formula. The Commission endorses this effort.

Community college appropriations have periodically been based on formulas. The fiscal year 1985 state aid is allocated using a mathematical model developed by the House Fiscal Agency. Briefly, the formula is a complex average cost driven model that also equalizes the variations in local property wealth and provides special equipment funding.

Considerable formula development remains to be done at the college and university level. Since necessary revisions to existing formulas cannot be completed in time for the fiscal year 1986 budget, **the Commission recommends for fiscal year 1985-86 that existing aid be modified only by institutional roles, the various augmentations recommended throughout this report, and an adjustment for inflation.**

"The task then is to develop new formulas that allow institutions to adjust to an environment of declining enrollments and that do not have unintended educational implications."

—Cost Information and Formula Funding: New Approaches, National Center for Higher Education Management Systems, 1982

For a longer term, the Commission supports the Legislature's call for creation of a task force to revise the Owen-Huffman Investment Needs Model. The Investment Needs Model was last used in the 1979-80 budget cycle to project the funding necessary to support the system. The model is normative; that is, it is largely based on standards of appropriate expenditure levels negotiated by the institutions and the legislative fiscal agencies rather than on previous actual expenditure patterns such as average per-credit-hour costs. The model, then, projects what expenditures and revenues ought to be, rather than what they will be.

The Commission recommends that the Executive Office and the Department of Management and Budget immediately convene this group and that it consist of representatives from the Presidents Council of State Colleges and Universities, the Legislature and the Department of Education. This task force should make its recommendations by October 1, 1985. This Commission specifically recommends that the revised formula include the use of national peer institutions to set funding standards of our research institutions, that enrollment changes be recognized and that the current systemwide ratio of state and tuition funding be maintained. It should be noted that the assumption on tuitions represents, in the short run, an acceptance of budgetary realities. For the long run, it should be an overall goal to increase the relative ratio of state funding to student costs.

Providing Better Mechanisms for Program Review and Approval

RECOMMENDATION: THAT THE STATE ADOPT THE PROPOSED INSTITUTIONAL ROLE AND MISSION CLASSIFICATION SYSTEM AND DEVELOP A MORE SYSTEMATIC HIGHER EDUCATION BUDGET PROCESS USING (1) THE ROLE AND MISSION STATEMENTS, (2) THE PROPOSED FORMULA FUNDING MODEL, (3) AN EXPANDED DATABASE SYSTEM AND (4) A PROGRAM REVIEW AND APPROVAL PROCESS. A NEW COMMISSION SHOULD BE EMPANELED BY THE GOVERNOR AFTER THREE BUDGET CYCLES TO ASSESS THE EFFECTIVENESS OF THE PROPOSED SERIES OF POLICIES IN ACHIEVING A MORE SYSTEMATIC APPROPRIATIONS PROCESS.

The time when all schools could afford to offer programs in all areas is past. The emphasis now has shifted to quality and demand; to put it in market terms, competitiveness. In the Commission's view, the allocation of educational resources by clear policy goals is the most appropriate approach to budgeting. The leadership of the Governor and the Legislature is pivotal to this effort.

The Commission views the budget process as the most workable means for focusing spending priorities. For that reason, **it is recommended that a rigorous annual education budget process be developed by the Department of Management and Budget and the Department of Education at the direction of the Governor using the policies set forth in this report.** It is anticipated that additional state funding will be required to support this staff function. Prompt implementation of a statewide education database is crucial to the implementation of such a budget planning and decision making process.

The Commission found many instances where a more comprehensive budget process could have significant implications for resource allocation. In its analysis of the distribution of public college and university academic programs, for instance, the Commission found that when programs are summarized into 21 areas of study, unnecessarily duplicative or low degree producing programs exist at every public college and university in the state. In 1982, 40 percent of doctoral programs produced fewer than 10 degrees, 35 percent of masters programs conferred fewer than 15 degrees and 26 percent of baccalaureate programs generated fewer than 20 degrees. The Commission further found that the programs were not unique, but rather typically were duplicated by another institution. Again in 1982, all baccalaureate and masters degree programs, and nearly three-quarters of doctoral programs, were available at more than one public institution. While many factors must be considered in determining state funding for programs, there are many areas for further questioning indicated by these data.

While occupational supply and demand data have their limitations, there are some areas where their utilization also could be extremely effective in program review. For instance, occupational supply and demand information could justify a 35 percent reduction in physician production, a 55 percent reduction in dentist production, and a 35 percent reduction in one- and two-year nursing programs. The Commission suggests that state subsidies for those curricula could be withdrawn in a way consistent with these findings.

Program distribution decisions should also be made in high-demand, high-cost programs to ensure the best use of the state's resources. For example, the existence of high-quality engineering programs is critical to Michigan's economic future. They are extremely costly and are being offered by an increasing number of institutions. The Commission feels it makes little sense, to purchase the equipment necessary to produce a combined total of 20 engineering doctorates at two institutions located in adjoining counties or to fund undergraduate engineering programs at more than five

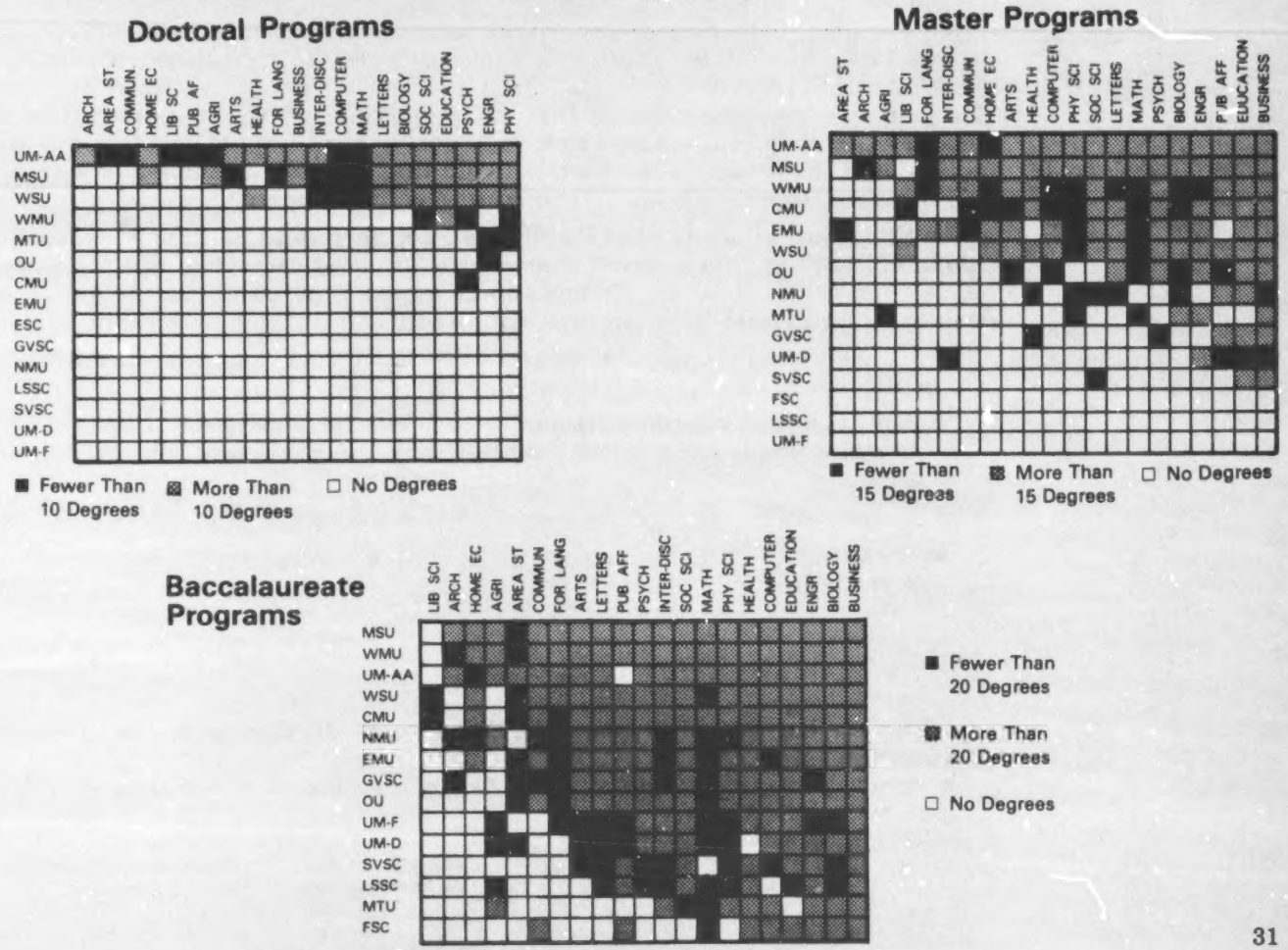
or six institutions. Thus, the Commission recommends that state funds could be focused on the few high-quality programs consistent with institutional roles and missions to ensure quality.

In order to address these issues, the Commission recommends that the Governor and the Legislature establish a comprehensive review and approval procedure within the budget development process. Reviews should determine if programs are consistent with the institution's role as well as instructional quality, occupational supply and demand data, cost, productivity, student outcome measures and geographic access. Programs found to be inconsistent with these criteria **should not be subsidized by the state** and a phaseout of their funding should occur.

It should be acknowledged that the voluntary program approval process operated by the President's Council of State Colleges and Universities, along with internal program reviews, has had some success in curbing program duplication. However, it is the view of the Commission that further constraints will be required to avoid unnecessarily duplicative and low degree-producing programs in the system.

Finally, **the Commission recommends that after a trial period of three full budget cycles, a new commission be appointed by the Governor to follow up and evaluate the implementation of the Commission's fundamental recommendations and provide a report regarding policy changes that may be appropriate.**

Public College and University Degrees Conferred 1981-1982



Emphasizing Cooperation and Technology

RECOMMENDATION: THAT REGIONAL COOPERATION AND RESOURCE SHARING BE ACTIVELY SOUGHT BY INSTITUTIONS, GOVERNING BOARDS, THE STATE BOARD OF EDUCATION, THE GOVERNOR AND BY THE LEGISLATURE; AND THAT A PANEL EVALUATE THE COST AND FEASIBILITY OF EXPANDING TELEVISION-BASED TEACHING AND OF AUTOMATING LIBRARY OPERATIONS.

The Commission applauds the resource-sharing programs already in effect, such as the joint use of physical facilities, joint degree programs, early college admission for talented high school seniors and agreements which facilitate the transfer of credits. However, in view of future needs, **the Commission calls for even greater progress in innovative ventures such as telecommunications networks, program agreements between institutions and sectors, consolidated library resources and maximum use of automated technology to eliminate costly and inefficient duplication. Agreements regarding the transferability of credits from one higher education institution to another must be expanded and strengthened as well.** Development in these areas is an ongoing process and should receive priority in all resource allocation decisions.

Use of the proposed comprehensive database could eliminate costly program duplication and avoid the significant failures of the past where universities or colleges went their own way and in some cases either canceled valuable programs across the board or expanded, with little regard for state or regional needs and options.

One excellent, but underutilized, cooperative mechanism is telecommunications. Although television has been used at Michigan colleges and universities for almost 40 years, its practicality, cost and range of application have never been fully developed. **The Commission recommends that an immediate effort be undertaken to consider the questions related to its use and overall impact on students and faculty, and the quality of instruction; and that the state assume a leadership role in using statewide telecoursing and teleconferencing.**

The State Superintendent of Public Instruction should assume a leadership role in calling together a panel from all the affected sectors to initiate action on this proposal. It is the Commission's intent that an action proposal be developed that could have private support for continuing leadership.

There are several inherent advantages to developing and using educational television in Michigan:

- Ability to use existing community locations for video centers such as libraries, grade schools, high schools, community colleges and private sites;
- Holding down cost of commuting while assuring geographic access;
- Providing a vehicle for increasing cooperation between private sector and higher education;

"Telecommunications is to the future what the highways, railroads and harbors were to the past.
The capacity to use (it) effectively as a new form of communications and commerce will be unparalleled in our history."

—David L. Birch, Massachusetts Institute of Technology, 1983

- Guaranteeing quality instruction in critical areas such as the humanities, the social sciences and computer instruction;
- Better delivery of state job training programs; and
- Flexibility in meeting continuing education requirements and retraining for adult fulltime workers.

According to the Council of State College and University Library Directors, a revolution is occurring in storing, retrieving and cataloging information. An upsurge in the volume of information and the speed of its production have placed libraries on the front line of technological change. Because academic libraries are central to the instructional and research capabilities of higher education, the **Commission recommends that the technology panel proposed above also estimate the cost of connecting academic libraries through automation** (including the cost of converting library holdings to computer readable format, the cost of acquiring necessary hardware and software and the cost of staff training **and recommend a plan for funding this automation.**

The Commission would be presenting a false expectation if it were to suggest a single, across-the-board answer to questions of tighter coordination. Rather, cooperation between institutions must be accomplished through continuing pressure and creative problem solving at the state and regional levels. Too often public and private entities work together to create their own private turf at the nearest institution rather than addressing a statewide solution. It is imperative that we move away from such parochialism if effective use of resources is to be accomplished.

Maintaining the Physical Structure

RECOMMENDATION: THAT $30 MILLION PER YEAR BE APPROPRIATED OVER THE NEXT FOUR YEARS TO CONDUCT DEFERRED MAINTENANCE PROJECTS AT PUBLIC TWO- AND FOUR-YEAR COLLEGES AND UNIVERSITIES.

When the Commission began its deliberations, it was confronted with claims from the state's colleges and universities that inadequate funds had been provided to maintain their physical structures and that serious deterioration was occurring. Indeed, the Presidents Council noted that, "If no state action is taken, buildings will be lost." The Commission has found many of these concerns to be well-founded.

Michigan's public colleges and universities operate a physical plant with an estimated replacement value of nearly $5 billion but the state appropriates less than $10 million annually for higher education facility maintenance. College and university personnel argue that during the late 1970s and early 1980s, institutional funds that normally would have been used for maintenance were diverted to cover other shortfalls.

In an effort to determine the amount of maintenance deferred by the institutions during this period, the Department of Management and Budget surveyed each public four-year institution. The cost of conducting the maintenance projects submitted in response to the survey totaled $125 million.

In order to validate the need, the Commission asked the Michigan Society of Professional Engineers to examine deferred maintenance needs at our public colleges and universities. Teams of independent engineers visited five universities and conducted an extensive review of their maintenance requests. The Society identified a backlog of deferred maintenance projects of about $50 million at the five universities visited. The Commission feels that when the other ten, mostly smaller, campuses are considered, the actual total college and university deferred maintenance need is about $90 million.

Public community colleges have not in the past received state funds for facility maintenance, but it now appears that it would be prudent for the state to alter this policy. Most of the existing community college physical plants were constructed during the 1960s or before and are now reaching the age where significant maintenance is required. Community colleges, however, have had difficulty obtaining maintenance funding. The passage of the amendment to Article 9 of the Constitution which requires a vote of the electorate for any millage increase inhibits the use of local funds for facility maintenance. Similarly, state aid reductions have constrained community college budgets. The Commission feels it is in the state's interest to maintain this valuable resource.

". . . Deferred maintenance tends to become more acute with the passage of time and will cause progressive decay, enhancing the rate of deterioration and breakdown . . . increased repair requirements must be given a great deal of attention."

Deferred Maintenance: Current Backlog at State Facilities, Department of Management and Budget, 1983

An inventory of community college maintenance needs has not been compiled. However, based on testimony heard by the Commission, it appears that community college needs generally correspond to college and university needs. Since the $90 million maintenance program recommended by the Commission equals about 2 percent of the physical plants' replacement value, it seems reasonable to estimate that 2 percent of the community colleges physical plants' replacement value, about $30 million, will be required to address community college deferred maintenance needs.

Specifically, the Commission recommends that a total of $120 million be appropriated over the next four years in a higher education deferred maintenance annual lump sum appropriation to the Department of Management and Budget. Consistent with current capital outlay policies, not more than 50 percent of the cost of a community college maintenance project should be provided from this fund.

The Commission also feels that both the state and the institutions historically have not placed a high enough priority on facility maintenance. Even during the recent period of fiscal difficulty, new construction projects had a much higher priority than maintenance projects. In fiscal years 1981 and 1982, for example, only a total of $4 million was appropriated for maintenance, but nearly $60 million was appropriated for new construction. **The Commission strongly recommends that maintenance become the highest capital outlay priority.**

Targeting Capital Expenditures

RECOMMENDATION: THAT NEW CONSTRUCTION PROJECTS AT STATE FOUR-YEAR INSTITUTIONS BE REQUIRED TO MEET STRICT CRITERIA OF NECESSITY TO RECEIVE STATE FUNDING; THAT SIMILAR CRITERIA BE APPLIED TO COMMUNITY COLLEGE CONSTRUCTION; AND THAT ALL INSTITUTIONS BE ENCOURAGED TO FIND NEW SOURCES OF PRIVATE AND FEDERAL SUPPORT FOR CAMPUS PROJECTS.

At the time the Commission was formed, a backlog existed of some $750 million in capital outlay requests for new construction from the colleges and universities alone. Responding to Governor Blanchard's charge, the Commission scrutinized each request and listened to presentations from each college and university. The Commission pared down the list to projects costing approximately $125 million. The Commission also developed a set of criteria that it hopes will guide the Governor and the Legislature to make cost-effective and policy-based future capital outlay decisions.

The Commission recommends that state policymakers adopt the following criteria for all future outlay decisions:

- Renovation and physical safety projects will receive highest priority;
- Construction of new classrooms should be discouraged. Additional classroom space should be gained through renovation or remodeling, or sharing arrangements with neighboring institutions;
- Proposed new construction should be approved *only* if consistent with: State economic development and job training priorities or achieving programs of national excellence; Recommended institutional roles and missions; Proposed program curtailments.
- State funding for new construction should be appropriated *exclusively* for specialized academic and research facilities. Institutional and private funds should be the sole source of financing for nonacademic or nonresearch projects, such as auditoriums and athletic facilities;
- Review of program statements by Department of Management and Budget should ensure that each project endorsed for legislative consideration is appropriate to the institution's role and mission (as well as with other applicable state policies);
- In general, a project should not receive state funding unless it is among the three top priorities of the institution; and
- Community colleges should be subject to the same criteria of necessity. The existing match requirements for that sector should be sustained.

In comparing these criteria to the current capital outlay requests, **the Commission recommends the following projects:**

- Ferris State College, Heavy Equipment Building construction;
- Wayne State University, Mackenzie Hall renovation;
- The University of Michigan, Chemical Science Building construction and Natural Science Building renovation;
- Michigan State University, Veterinary Clinic construction and renovation.
- **A major remodeling lump sum of $10 million to be appropriated annually to the Department of Management and Budget for remodeling projects at state two-year and four-year institutions.** The first projects to be funded should be the requested remodeling projects at Western Michigan and Eastern Michigan Universities.

The Commission also has a number of observations to make regarding other capital requests:

- **Northern Michigan University Olympic Training Center:** This project appears to be economically desirable, but it is not a higher education academic or research project and thus does not appear on the above list.
- **Eastern Michigan University, Corporate Training Center:** This project is a major intersection of higher education training and economic development needs. This joint venture with a privately financed hotel should generate significant benefits and merits support as an economic development project.
- **Grand Valley State College, Grand Rapids Center:** The Commission suggests this project be revised to an institute which stresses graduate and technical education, with a special emphasis on office systems and facility-management technologies. Graduate offerings, which the Commission finds to be an important need in that part of the state, should be provided through the institute by a consortium of appropriate universities, under the direction of an independent board. Further, the Commission recommends that, should additional classroom space be needed, alternatives to construction be explored before a new facility is built.
- **The Commission recommends that a review panel of industry experts be convened to assess the economic payback to the state and the demand for graduates of any future capital projects presented by the institutions as having economic development potential.** The first project to be reviewed should be the Minerals and Materials Building at Michigan Technological University.

"Sufficient physical capacity probably exists for higher education, but it is geared improperly to meet future needs."

—Higher Education Capital and Investment Advisory Commission, William Agee, 1980

"Sixty-six percent of the adults surveyed were opposed to increased spending for the construction of new buildings on campus."

Attitudes and Opinions: Michigan Higher Education, Frank Magid Associates, 1984

Promoting Program Efficiency

RECOMMENDATION: THAT THE MEASURES THE COMMISSION HAS OUTLINED BE IMPLEMENTED TO GUIDE CONTINUED PROGRAM EFFICIENCIES AND INSTITUTIONAL DOWNSIZING; AND THAT CRITERIA BE DEVELOPED WHERE REDUCED ENROLLMENTS MAY IN THE FUTURE MANDATE CAMPUS OR INSTITUTIONAL MERGERS OR CLOSURES.

Michigan's higher education system has already increased its efficiency through program review and resource allocation. Nearly $70 million has been redirected from low-priority efforts to higher-priority efforts in the four-year schools alone. Community colleges have made similar readjustments. However, a large number of unnecessarily duplicative, low degree-producing and frequently high-cost graduate and undergraduate programs are still in operation. Further efficiencies are undoubtedly possible, especially in light of enrollment declines.

In this section, devoted to focusing the priorities of higher education in Michigan, **the Commission recommends a plan for a stronger, leaner and more efficient system. If followed, this plan will eliminate the need for more than $600 million in capital expenditures, and from $40- to $55-million annually in future operating costs. The elements of the plan are summarized below:**

- **ROLE AND MISSION CLASSIFICATIONS**—After reviewing information on the number and size of existing graduate programs, enrollment projections, and geographic factors, the Commission concluded that funding should be focused on fewer graduate degrees. **State subsidies should be discontinued for those programs not consistent with an institution's role and mission.** However, it should be recognized that the labor intensive nature of these programs makes savings dependent upon staff reduction and attrition. Thus, actual savings will be realized in the long term rather than the short term.
- **UNDERGRADUATE PROGRAM REVIEW**—Similar data exist to confirm that the number of undergraduate programs is excessive. **The Commission recommends that low degree producing, non-core curriculum programs be reviewed by the Department of Management and Budget (DMB) and Department of Education as a part of the annual budget review process, and that the Executive Office and the Legislature be advised to discontinue subsidies for those programs.**
- **HEALTH CARE PROFESSION PROGRAMS**—Studies developed by the Michigan Department of Public Health and DMB's Office of Health and Medical Affairs reveal that the number of physicians, dentists and nurses being graduated from Michigan's professional schools exceed overall statewide demand. Their data justify a 35 percent reduction in the number of physicians, 55 percent in dentists, and 35 percent in one-and two-year nursing programs. **The Commission recommends that state subsidies for these curricula be withdrawn in a way consistent with those findings and with other considerations such as the social service commitments of professional schools.**

  While it is recognized that some areas of the state do not yet have adequate medical services, this problem must be dealt with in ways other than perpetuating a substantial oversupply. The Commission recommends that incentives be explored for resolving distribution problems, and addressing the health personnel needs of particular service areas. This goal should be addressed immediately by joint Legislative/Executive action to develop the appropriate budget recommendations.

- **HIGH-COST ENGINEERING PROGRAMS**—The existence of high-quality engineering programs is critical to Michigan's economic future; they are extremely costly and are being offered by an increasing number of institutions. The Commission feels it makes little sense, for example, to purchase the equipment necessary to produce a combined total of 20 engineering doctorates at two institutions located in adjoining counties or to support more than 5 or 6 engineering programs. **The Commission recommends that state funds be focused on the few high-quality engineering programs consistent with institutional roles and missions.**
- **INFORMATION SHARING**—Currently, information critical to efficient and effective higher education policy development at the individual schools and statewide levels is not only difficult to obtain, but frequently not in a comparable format because it is maintained by numerous state agencies. Implementation of a uniform statewide database, as recommended by the Commission, will provide more comprehensive information for all institutions and state policymakers to make better comparative decisions. **The entire data system should be on-line and available to all state and institutional planners.**
- **CAPITAL OUTLAY CRITERIA**—Other higher education commissions have concluded, and this Commission agrees, that far too many state funded capital outlay decisions are made for parochial reasons rather than from a statewide higher education perspective. **Thus the Commission recommends that the capital outlay criteria it developed be adhered to for all future capital decisions.**
- **ENROLLMENT-DRIVEN FORMULA**—Currently, state aid to colleges and universities is distributed without regard to enrollment changes. Since we are entering a period of long-term enrollment decline, perhaps as large as one-fifth of peak levels, continuation of this policy would simply provide funds for the education of students who are no longer there. **The Commission recommends that enrollment be a key factor in the distribution of state subsidies.**
- **EXCESS ACADEMIC CAPACITY IN SOUTHEASTERN MICHIGAN**—The decline in enrollment at Wayne State University over the past few years approaches the *total* enrollment at The University of Michigan-Dearborn. Similarly, the enrollment decline at Wayne County Community College equals or exceeds the enrollment at a number of area public community colleges. As enrollment continues to decline over the next decade, southeastern Michigan's education capacity will increasingly be underutilized. **The Commission recommends that a detailed cost-benefit analysis be undertaken by DMB, using the criteria discussed on the merits of eventually consolidating appropriate southeastern Michigan programs.**

Closing Criteria. Finally, given enrollment projections, the **Commission suggests that a standard be adopted for triggering the consideration by state policymakers of closing or merging some state institutions, should that be necessary in the future.** The Commission recommends that when an institution loses more than one-third of its peak year enrollment, a comprehensive cost-benefit analysis be conducted on the merits of merger with another institution, closing a campus, and/or closing the institution. Consistent with other states that have conducted similar studies, the analysis should include a review of the institution's ability to fulfill its educational mission, student access and need, fiscal impact on the area, impact on collective bargaining agreements, and identification of actual cost reductions. It is likely that several institutions will confront this problem by 1995.

Strengthening Institutional Leadership

RECOMMENDATION: THAT UNIVERSITY GOVERNANCE BE STRENGTHENED BY GUBERNATORIAL APPOINTMENT OF ALL GOVERNING BOARDS; BY EASING OF UNDULY BURDENSOME FINANCIAL DISCLOSURE LAWS; AND BY CREATION OF A MORE SUPPORTIVE ENVIRONMENT FOR PRESIDENTIAL LEADERSHIP.

Strong institutional leadership, at both presidential and governing board levels, is central to ensuring a quality system. The Commission believes that the selection and support of these individuals must be improved in order to attract the best candidates for university leadership positions.

The Commission recommends that three steps be taken to establish a stronger basis for institutional leadership:

- **ALL BOARD MEMBERS BE APPOINTED BY THE GOVERNOR—The Commission recommends that the Legislature initiate a ballot proposal, to be placed before the voters in the general election, providing for gubernatorial appointment of all university governing boards.** Although it will take a constitutional amendment, the Commission has concluded that such appointment is the best method of choosing individuals for state college and university boards. Michigan is one of only five states where university trustees are chosen by the electorate. It is the Commission's view that the current system often leads to limiting and capricious choices and discourages many qualified candidates who are unwilling to subject themselves to its uncertainties.

  Further, it is suggested that consideration be given to the creation of a blue ribbon, privately-funded citizens group to recruit and screen governing board candidates. This recommendation is modeled on the findings of the Association of Governing Boards of Universities and Colleges' study of trustee selection.

- **CONFLICT OF INTEREST AND FINANCIAL BARRIERS TO APPOINTMENT BE EXAMINED**—Present financial disclosure requirements for governing board members are more restrictive than those imposed on registered lobbyists. The Commission questions whether such burdensome requirements are necessary to protect the public from conflict of interest. Careful consideration should be given to reforming those requirements to bring into better balance the public's right to know the financial circumstances of public officials with the privacy rights of those individuals serving voluntarily on governing boards.

"More open and systematic procedures for trustee selection will improve the probability that only highly qualified persons with a demonstrated commitment to higher education will be chosen to serve on public governing boards."

—National Commission on College & University Trustee Selection, 1980

- **PRESIDENTIAL LEADERSHIP BE STRENGTHENED**—The Commission also considered the conditions under which university presidents must carry out their responsibilities in a time of institutional transition.

  In this connection, the Commission urges that serious consideration be given to the recommendations of the Commission on Presidential Leadership, a national panel that conducted an intensive study of college presidencies in America. The Commission, headed by Clark Kerr, former president of the University of California, concluded that the president's job at most institutions has become too unrewarding, too stressful and too constrained by outside influences to attract the kind of person that is probably best qualified to serve. Constraints include more federal and state controls on institutions; more faculty influence over appointments, policy and promotions; more participation by governing boards in daily decision making; greater student influence, and economic conditions.

  Strengthening presidential leadership is one of higher education's most urgent concerns, according to the Kerr Commission. *It would profit each of Michigan's institutions to conduct a reexamination of the conditions surrounding the president's role as it relates to: involving faculty in decision-making, minimizing factionalism, clearly delineating the responsibilities of the president and the board for management and policymaking, and reestablishing presidential leadership in critical financial and program areas.*

Supporting Economic Progress

Introduction

The past two decades have treated Michigan's economy with a harsh hand. Countless thousands of our workers have been laid off or displaced; many firms have closed their doors; and our durable goods manufacturing sector, especially the automobile industry, seemed on the verge of losing international competitiveness.

In establishing this Commission, one of Governor Blanchard's objectives was to examine the relationship of higher education to economic development and job creation. In accepting this charge, the Commission examined not only Michigan's strengths, but also the success stories from other states, such as Massachusetts and California. The Commission identified several key factors in these successes:

- Existence of nationally recognized universities doing research at the cutting edge.
- Interest in applying basic and applied research to the real world by encouraging faculty and entrepreneurs to transfer technology out of the university into the marketplace.
- Significant venture capital and federal research contracts.

Further, for Michigan, the Commission identified a series of overall objectives in relating higher education to economic development.

- Stress on increasing Michigan's competitiveness and diversification;
- Emphasis on aspects of the economic base where Michigan possesses a comparative advantage including manufacturing, food and forest products and plentiful water resources;
- Highlighting the invaluable human resources and skilled work force that have distinguished Michigan.

The results of the Commission's work form the basis for a strategy which links Michigan's tradition of excellence in higher education to the imperative of revitalizing existing industries, creating new firms and providing stable new jobs.

- The Commission proposes a series of focused investments in Michigan's research universities and in their cutting edge research and development programs. Building on recognized basic and applied research, higher education can help fuel Michigan's economic renaissance, but the Commission recognizes that investments must be tightly focused on areas of demonstrated excellence.
- The Commission also suggests a variety of ways to facilitate the transfer of technology from the laboratory into the business world by reducing existing barriers to the commercialization of discoveries, by increasing the availability of venture capital, by procuring more research funding and by encouraging and training entrepreneurs.
- Finally, the Commission urges a serious job training effort for Michigan's workers. As long as relatively unskilled labor is called for in the workplace, well-paying jobs in Michigan can be exported abroad into cheaper areas; but if high skills lead to high productivity, Michigan's jobs will stay right here where they belong.

If implemented, the Commission's suggestions can create the links between our higher education system and our economy that can once again make Michigan an arsenal—this time an arsenal of productivity.

Supporting Excellence in Research and Development

RECOMMENDATION: THAT A RESEARCH EXCELLENCE FUND BE CREATED BY ACTION OF THE LEGISLATURE TO FUND A FIVE-PART STRATEGY FOR MAINTAINING MICHIGAN'S RESEARCH LEADERSHIP; AND THAT A COMMON SEMESTER CALENDAR BE ADOPTED BY THE RESEARCH INSTITUTIONS.

Michigan's major research universities are ranked among the finest in the nation. Their ability to attract research and development funding, and the finest faculty and graduate students, has for many years made Michigan a strong competitor in the market place of knowledge and technology.

Recent developments, however, have cast into doubt Michigan's commitment to sustain that leadership. Years of unstable state appropriations, compounded by declining federal support, have been costly to the research institutions, not only in building disrepair and equipment obsolescence, but in their ability to keep distinguished faculty and attract talented graduate students. The level of state funding for Michigan's research universities has fallen below that of comparable institutions in other midwestern states. Priority funding is essential to maintain and enhance their reputation for excellence in physical and intellectual resources.

Enhancing cooperative efforts among the research institutions merits considerable attention. **The Commission recommends that the research institutions adopt a common semester calendar.** This would enable them to do joint projects and resource sharing far more effectively.

The Commission proposes that money be earmarked in the higher education appropriation act to create a five-part Research Excellence Fund. Primary responsibility for administering the Research Excellence Fund should be assigned to the Department of Commerce. To become Research Excellence Fund grantees, institutions would submit formal proposals for screening based on compatibility with state economic development goals. Priority funding would go to research universities.

These funds should be administered by the Department of Commerce in the five areas outlined below. Proposal review would be based on Commerce's identification of research sectors which have the greatest applicability to the needs of the state's economy. Proposals would then be screened by a peer review process of technical evaluation modeled on the National Science Foundation process. A peer review process by individuals knowledgeable in the fields under consideration and independent of Michigan's research universities would ensure that the most qualified projects are selected without regard to institutional affiliation or other parochial bias.

Research excellence funding should be distributed in support of proposals involving some or all of the elements described below:

- **CENTERS OF SCHOLARLY EXCELLENCE**—To enhance the standing and strength of advanced scholarship in Michigan, **the Commission recommends an annual appropriation of $15 million to support several internationally competitive Centers of Scholarly Excellence.** Funds would be targeted, based on national rankings of R&D excellence, at programs having a demonstrable likelihood of achieving reputations of regional or national excellence during a 3-to-5-year funding period. Although proposals from major research universities would be given priority status, other programs such as the Paper Science Institute at Western Michigan University would qualify under the proposed criteria. These centers of excellence will primarily be focused on building up research capability in science and engineering. They will also include such premier social science research as can add to our understanding of how the state's citizens and public institutions can better adjust to the economic and social changes that lie ahead.

- **STATE MATCH FOR ENDOWED FACULTY POSITIONS**—To attract outstanding researchers and prevent a migration of researchers from Michigan, **the Commission recommends a $15 million state appropriation over three years to be matched on a dollar-for-dollar basis by institutions for use in financing special faculty positions.** One million dollars in endowment funds could be procured by combining a $500,000 minimum institutional match with an equal amount of state funding. Under this proposal, public and private dollars would combine in a trust fund to perpetually endow faculty positions in targeted disciplines. Endowed chairholders would be required to engage in specified public service, when appropriate, as a condition of this public trust.
- **STATE SUPPORTED GRADUATE FELLOWSHIPS—The Commission recommends an annual set-aside of $2 million in state fellowship funds to support graduate students in disciplines related to economic development and those whose humanities or social service research will help the state in adapting to the influence of technology on people and on the environment.** This program administered by the Department of Education based on a plan jointly developed by the Department of Commerce and the State Superintendent, would help research institutions attract an outstanding corps of research apprentices and future faculty members.

  This fund would enhance the research institutions by strengthening their graduate recruitment efforts through full-tuition waivers, stipends or fellowships in highly competitive fields. The Commission believes that fellowships and tuition waivers will increase the willingness of talented students in fields of particular relevance to the needs of this state to learn, teach and work in Michigan.
- **STATE MATCH FOR INDIRECT COST REVENUES—The Commission recommends that funds be annually appropriated to serve as a 25 percent match for the overhead funds awarded to universities carrying out sponsored research.** This program would double the funds available for acquiring specialized laboratories, sophisticated equipment, books, journals and other supports needed to uphold the research enterprise. **1983 data indicate that a 25 percent state match for the $40.1 million in indirect costs recovered by researchers would bring additional administrative support funding of $10 million annually.** Distribution of these funds would be by specific formula.
- **APPROPRIATION FOR MAJOR RESEARCH EQUIPMENT**—The availability of specialized research equipment influences the volume of scholarly output, especially in the sciences and engineering. In the highly competitive arena of federal R&D funding, antiquated research equipment can reduce an institution's sponsored support. A recent federal study reported that ". . . university researchers work with inadequate tools that impair the pace of research, force closure of lines of inquiry. . . . The best equipped industrial laboratories surpass almost all university laboratories."

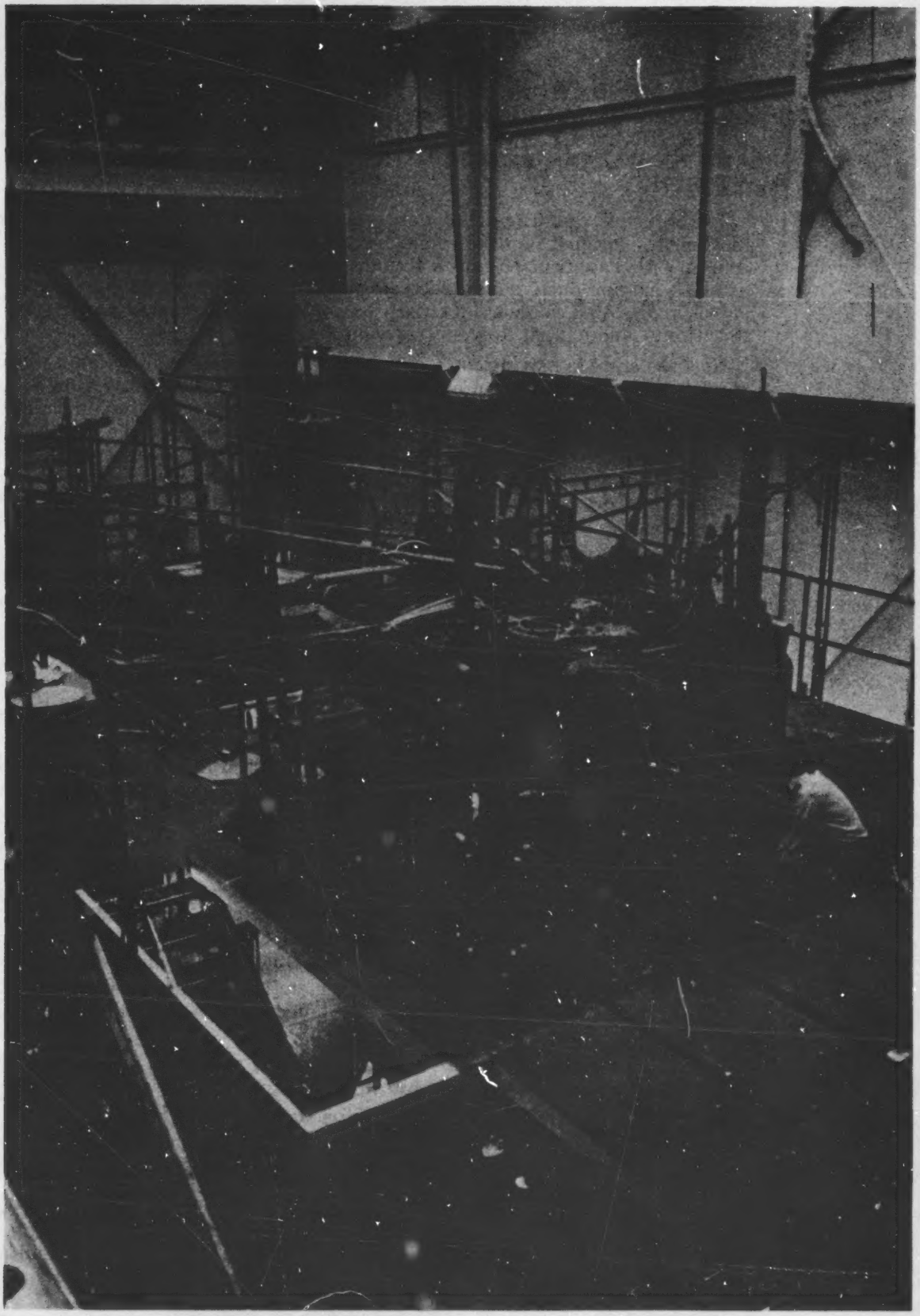
  In recent years, public institutions have deferred both equipment repair and equipment purchases. Funding to replenish the stock of instructional tools is recommended in a previous section of the report. Large-scale, nonroutine equipment is the issue the Commission believes is best addressed as part of the Research Excellence Fund.

  Currently, major equipment requests are handled in a way which hinders sound need-analysis and prevents prompt purchases. Lacking a fund for major equipment, institutions tend to imbed equipment needs in other requests. Verifiable estimates of major equipment needs are, therefore,

difficult to calculate. **The Commission recommends that state funds be appropriated for allocation to Research Excellence Fund grantees whose projects require specialized research equipment.** Examples of priority projects might include equipment for a solid-state electronics fabrication facility, expensive electron microscopes or high field, double-focusing spectrometers.

Priority should be given to equipment requests which are opportunity-based and hold promise for economic development if promptly approved. Based on campus visits and a review of specific proposals, **the Commission recommends an initial appropriation of $10 million annually, with the understanding that unused funds would lapse if sufficently worthy projects are not identified.**

The proposed Research Excellence Fund offers Michigan an opportunity to strategically target research and development funds for the very first time. We urge legislators to seize the chance to direct research expenditures in a way which benefits individual institutions, which achieves state policy goals and which promises more jobs and products to Michigan's citizens.



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Moving Expertise and Innovations to the Marketplace

RECOMMENDATION: THAT THE KNOWLEDGE AND RESEARCH RESOURCES OF MICHIGAN'S COLLEGES AND UNIVERSITIES BE MADE MORE BROADLY AVAILABLE THROUGH TECHNOLOGY TRANSFER, AND NEW LINKS BETWEEN THE BUSINESS AND UNIVERSITY COMMUNITIES.

The economic welfare of Michigan depends in the future, as it has in the past, on technology—not just its development, but its successful use and commercialization. Armed with new transportation technology a half-century ago, Michigan built an astonishingly productive manufacturing economy, creating in the process thousands of jobs and related commercial enterprises, a climate of progress and opportunity for its citizens, and a great university system.

Now the state is moving to an economy based on more sophisticated work. It is a transition that Michigan is uniquely equipped to make successfully. How successfully depends not only on the availability of research and technology, but on how efficiently those resources can be invested in economic development and used to bring new technology to the marketplace. Higher education must assume a truly strategic role in Michigan's future economy. The alternative is decline to second-class status as other states race ahead in the competition for new knowledge and technology, research funding, science scholars, and successful technology-based enterprises.

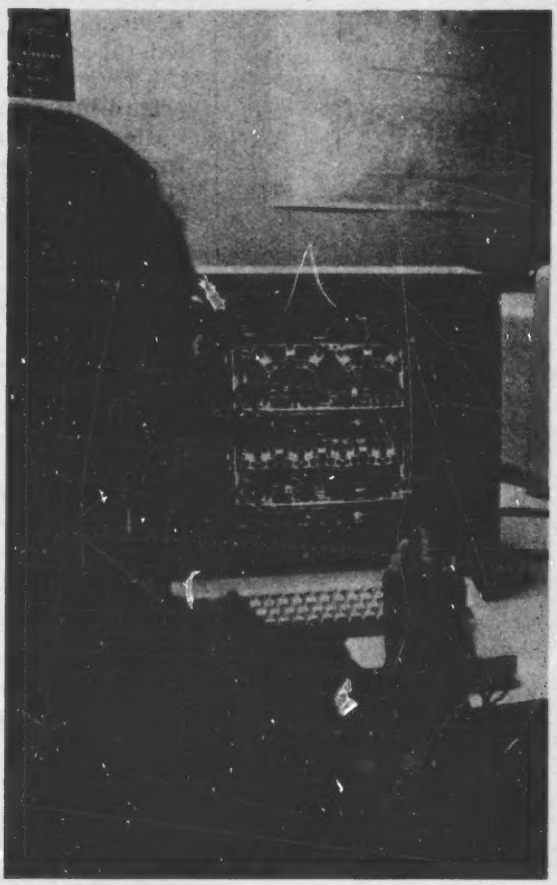
The university community in Michigan has responded to the challenge. That is attested by the impressive number and variety of economic development activities, approaching 50, either sponsored by or affiliated with state public colleges and universities. They vary greatly in quality and viability, in sophistication and aggressiveness. What is most critically needed now is to coordinate those until now uncoordinated, campus-based economic development activities with the state's overall educational and economic goals.

The Commission recommends the following steps be taken to open wider the doors of cooperation and communication between the university research community and all sectors of the business community and between the universities, in order to maintain and enhance Michigan's reputation for excellence and assure their continued contribution to the state's well-being:

- Expand the university **public service** mission to include assistance to private for-profit entities, and give credit toward tenure for faculty public service which is university coordinated and professionally relevant. Such expanded activity will help in the diffusion and commercialization of new ideas.
- Reexamine university regulation of **intellectual property,** in order to make possible greater faculty involvement in economic development activity and at the same time assure continued protection of the public investment in research;
- Allocation by the research universities of a portion of their endowment investments for **venture capital** purposes;
- Expand, and adequately fund, current **technology transfer network** activities. Existing mechanisms for university/business cooperation are embryonic, and the lack of access to technical assistance impacts most heavily on small- and medium-sized firms. The current network can be refined by establishment of a uniform computer network between institutions, along with placement of technology transfer agents on all campuses as well as in the state Department of Commerce. The existing Agricultural Cooperative Extension Service is an example of how this effort can be successfully accomplished.

- Create **a greater partnership between postsecondary education and local communities** through the establishment of formal mechanisms for communication between community leaders and postsecondary institutions, and urge the 98th Congress to fund the Urban Grant University Program (Title XI of the Higher Education Amendments of 1980). Incentives should also be encouraged at the state level to match institution and local funds spent on initiatives in areas of high unemployment or economic decline.
- Offer **entrepreneurial training** through college placement offices, for both students and alumni, to ensure that college graduates know how to establish and operate viable commercial ventures; and
- Create a **Product Development Center** as part of the proposed Michigan Strategic Fund now before the State Legislature. This Center would stimulate product innovation and fund transformation of laboratory discoveries into prototypes which venture capital investors would find appealing.

Economists consider the most important determinant of economic growth to be the pace at which new knowledge—technology—is diffused and used in the marketplace. The diffusion process is driven by high-quality research and excellent research faculty. If done well, diffusion results in a high volume of innovation, the establishment of new businesses, better local problem-solving and overall economic growth.



"A large majority (8 in 10) agree that public colleges and universities in Michigan have a significant role in strengthening the state's economy, and that a high-quality system of public colleges and universities is necessary to attract new businesses to the state and keep old ones."

—Attitudes and Opinions: Michigan Higher Education, Frank Magid Associates, 1984

RECOMMENDATION: THAT A COMPREHENSIVE JOB TRAINING/ RETRAINING STRATEGY BE SUPPORTED; THAT A STATE-FUNDED FINANCIAL AID PROGRAM BE DEVELOPED TO ASSIST WORKERS NEEDING NEW OR UPDATED SKILLS; THAT INFORMATION ABOUT THE STATE'S JOB TRAINING PROGRAMS BE MADE AVAILABLE THROUGH ONE SOURCE; AND THAT COMMUNITY COLLEGES BE ASSIGNED MAJOR RESPONSIBILITY FOR ADULT JOB TRAINING AND RETRAINING.

People and their talents have historically been the critical factors in our economy. Human resource development and knowledge have, since 1929, accounted for 75 percent of the increased output enjoyed by the United States. People and knowledge, furthermore, are predicted to stimulate more growth than any other factors between now and the mid-1990s.

Michigan's skilled and highly motivated labor force has been one of the state's great strengths in attracting and retaining industrial development. As the state economy continues its transition to a more sophisticated industrial base, a massive restructuring of the education system is required to improve worker capabilities and retain Michigan's competitive position.

The Commission recommends four strategies for addressing this need:

- **FINANCIAL AID FOR ADULT JOB TRAINING AND RETRAINING—The Commission recommends increased funds to retrain dislocated workers and employed workers whose skills need updating.** Although 200,000 Michigan citizens now fall into the former category, federal funds are only adequate to serve 8,000 of the people displaced by the recession and new technology. As a way to enhance the level of job retraining resources, **the Commission recommends that community colleges include dislocated workers in programs of special counseling and curriculum modification. The General Grant Program (GGP) discussed previously in this report is intended to initiate a financial aid program which is sensitive to the special circumstances and vocational needs of adults who often attend parttime at community colleges, colleges and universities. Proposed GGP funding would add $8 million in the first year, to $11 million in Federal Job Training Partnership Act funds** which are locally-matched. This would also complement the automobile industry's "nickel-an-hour" fund by offering retraining to unemployed industrial supply workers.
- **CENTRALIZED MARKETING FOR JOB TRAINING—Information on existing training programs must be made available through a single point to new and expanding industries.** The Office of the Ombudsman offers an excellent model for consolidating training information. At present, job training applicants (like many businesses) face a complex maze of program alternatives funded and administered by different levels of government—offered in a variety of settings (public, private, academic and nonacademic). A single contact point is needed. **The Commission recommends that the position of Job Training Ombudsman be established** with access to both the statewide technology transfer network previously proposed and to the labor market elements of the higher education database.
- **LABOR MARKET INFORMATION—The Commission recommends that the higher education database proposed previously in this report make occupational supply and demand data available, in usable form, to all institutions and policymakers involved in job**

training/retraining. In order to ensure that workers are prepared for jobs that actually exist, knowledge about changes and expansions in business and industry must be readily available.

- **COMMUNITY COLLEGES AS LEADERS IN ADULT JOB TRAINING—Community colleges should be formally assigned major responsibility for adult job training.** As locally-based institutions with a high degree of local control, contact with business and industry, and accessibility, they can best offer the off-site job training and retraining that has begun competing with on-the-job training methods. In this role, **community colleges are urged to strengthen communication links with industry to ensure that the equipment used for instruction matches the equipment graduates will use in the workplace.**

Creating a Michigan Lobby

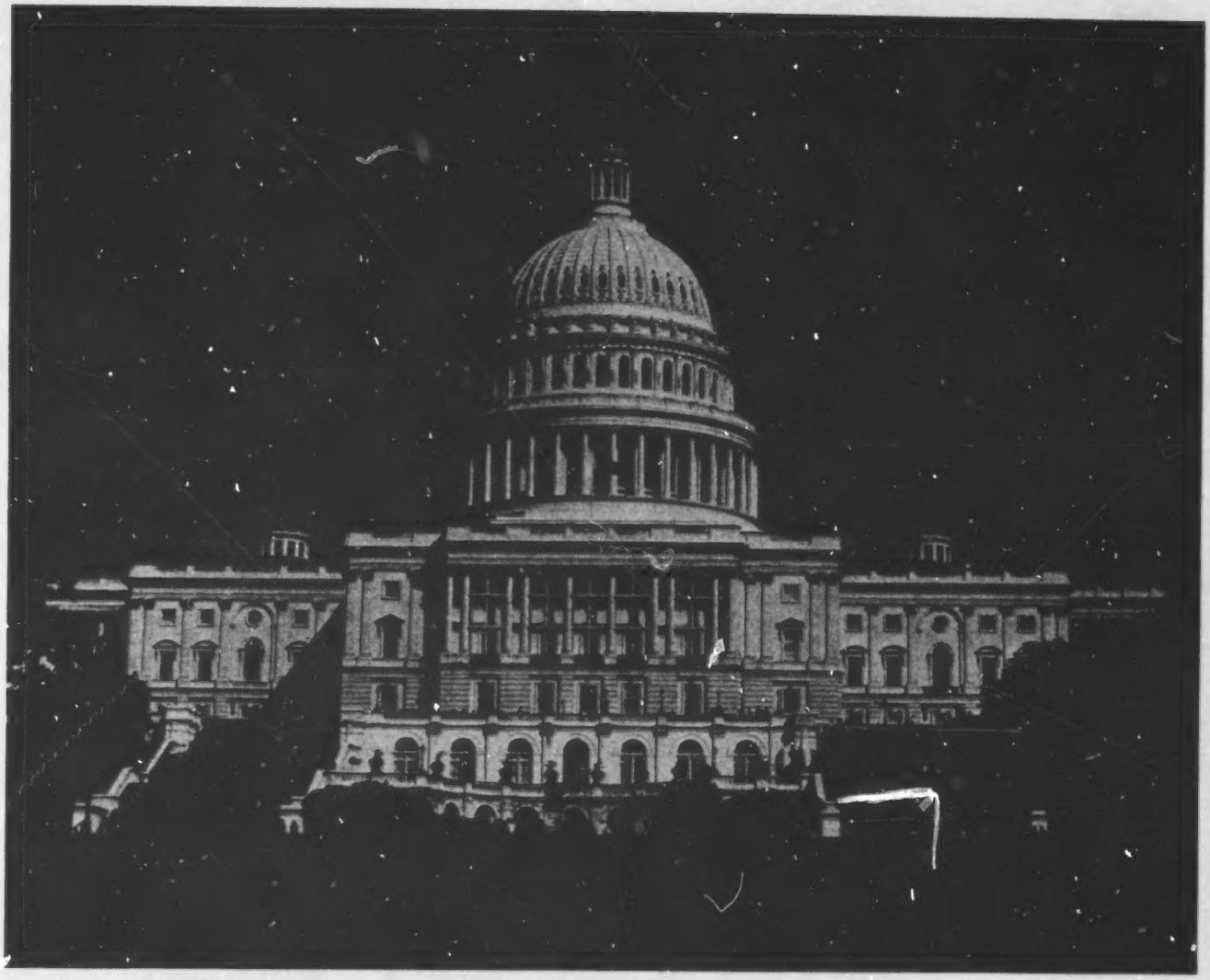
RECOMMENDATION: THAT MICHIGAN'S COLLEGES AND UNIVERSITIES MOUNT A JOINT EFFORT TO INCREASE THE STATE SHARE OF FEDERAL RESOURCES; AND THAT AWARENESS OF MICHIGAN'S RESEARCH AND EDUCATIONAL STRENGTHS BE AGGRESSIVELY PROMOTED THROUGH PEER AND PROFESSIONAL ORGANIZATIONS AND PERIODICALS.

The Commission recommends that Michigan's higher education institutions establish a joint Washington presence in order to improve communications with Congress and increase research support funding. That effort should be conducted in close liaison with the State of Michigan's Washington office. A successful Michigan lobbying effort could assist by:

- Reinforcing Michigan's image as a state which supports frontier research and development;
- Stressing the need for increasing federally-funded financial aid programs for undergraduate and graduate students, maintaining the effectiveness of federal equal opportunity regulations and communicating other key issues for the system as a whole; and
- Increasing Michigan's share of funding from the six agencies responsible for 95 percent of federal support for university research: the National Institutes of Health, National Science Foundation, Department of Defense, Department of Education, National Aeronautics and Space Administration and Department of Agriculture.

Substantial research has documented the relevance of a strong education system to the location decisions made by new and expanding industries. Yet the national view of Michigan's higher education system has been tarnished and research and technological advantages are shadowed by an outdated image. Fortunately, Michigan can now answer the negative stereotypes very effectively.

The Commission recommends that the state's educational institutions in cooperation with state government conduct an aggressive campaign by means of professional and peer organizations, periodicals and contacts, to help create greater awareness of Michigan's higher education system and research strengths. Such a campaign would serve to overcome negative stereotypes about Michigan as a state in industrial decline, and to publicize the state's new commitment of resources to its educational and research institutions. State funding of our proposed national campaign will be required.



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Creating a Partnership for Action

Introduction

Educational excellence is a proud Michigan tradition. The Commission has been encouraged and gratified to learn just how deep and widespread is the state's commitment to maintaining that tradition.

Restoring Michigan's educational greatness will be a monumental task, one requiring work and sacrifice from all. With assurance that the burdens will be equally shared, and that their efforts will produce an educational system capable of serving future needs, Michigan's citizens, taxpayers, educators, students, and elected leaders in Lansing and Washington are ready, we are confident, to take action.

The following agenda involves all sectors of the state in rebuilding and redirecting Michigan's system of higher education. Its expeditious enactment will make possible:

- Affordable education, once more, with stabilized tuition costs and expanded financial aid to qualified students;
- Specified roles and missions for each institution, ending expensive duplication of faculty, programs and equipment;
- New state funding policies, based on roles and missions and tied to enrollments;
- New standards of college admission, systemwide core curriculum requirements, teacher training, and higher expectations for the K-12 system;
- New sources of private and foundation funding for specific areas to supplement increasingly scarce state resources;
- New commitments to affirmative action and outreach to increase educational opportunity and access for minority, handicapper, women, older and parttime students;
- A complete data profile of Michigan public and private education so that current information on enrollment trends, program offerings, finances, occupational supply and demand, and student job placement can be used for institutional and individual planning;
- New responsibility for the community colleges in training and retraining of displaced workers, vocational training, and remedial education necessary for college admission;
- New channels for transfer of innovation and technology from the campus to the business community, which will facilitate the transition of Michigan's economy;
- A new and coordinated Michigan education presence in Washington, making the case for Michigan nationally and bringing more federal support to state institutions;
- New sharing and cooperative arrangements between campuses to make the most of library, classroom and other physical resources;
- A strict limitation on most new campus construction, with exceptions approved only where the contribution of a project to the state's overall economic well-being can be demonstrated.

The work of implementing this agenda will fall on all state sectors, and the first task to be undertaken is that of adjusting appropriations. These recommendations are the minimum required, in the Commission's view, to immediately shore up the state's research and technology capacity, stabilize tuition and expand financial aid, fund necessary maintenance and repair, provide for new faculty options, and accumulate the data necessary for future planning.

Assuming Strong State Leadership in All Sectors

RECOMMENDATION: THAT THE GOVERNOR, LEGISLATURE, VARIOUS STATE DEPARTMENTS, HIGHER EDUCATION GOVERNING BOARDS, AND PRESIDENTS, MICHIGAN'S CONGRESSIONAL DELEGATION AND THE STATE'S PRIVATE SECTOR AND FOUNDATIONS ASSUME RESPONSIBILITY FOR IMPLEMENTING THE VARIOUS RECOMMENDATIONS SET FORTH.

This report asks a variety of governmental and private organizations to address specific higher education issues. The following matrix summarizes this agenda and identifies where primary responsibility for implementing the recommendations should be assumed:

	Governor and Legislature	Department of Commerce	Department of Education	Department of Man. and Bud.	Governing Boards and Presidents	Congressional Delegation	Private Sector and Foundations
Investing in PEOPLE							
Student Financial Aid	x		x				
Federal Financial Aid Improvements						x	
Affordable Tuition Levels	x				x		
Faculty Early Retirement Incentives	x				x		
Faculty Exchanges, Retraining, Internships					x		x
Instructional Equipment	x						x
Minimum Admission Standards					x		
Instructional Core Curriculum					x		x
Affirmative Action Leadership	x				x	x	
Minority Enrollment Incentives	x			x			
Minority and Women Visiting Scholars and Administrative Internship Program					x		x
Vita Bank			x				
Recruit Talented Students into Teaching Profession			x		x		x
Teacher Education Improvements			x		x		
Education Excellence Coalitions for High School Improvement	x						x
Blueprint for Action			x				x
Community College Redistricting			x				
Focusing PRIORITIES							
Deferred Maintenance Program	x			x			
Remodeling Program	x			x			
Capital Outlay Criteria and Project Review Panels	x			x			
Appointment of Governing Boards	x						
Presidential Leadership Support	x				x		
Roles and Mission Classification	x			x			
Program Review and Approval			x	x			
Health and Engineering Program Adjustments	x			x			
Southeast Michigan Institutional Capacity Review				x			
Funding Formula Development	x		x	x	x		
Uniform Accounting			x	x	x		
Cooperative Efforts	x				x		
Technology and Library Panel			x				x
Follow-up Commission	x						
Comprehensive Database			x	x			
Closing Criteria Review	x			x			
Supporting Economic PROGRESS							
Research Excellence Fund	x	x				x	x
Common Semester Calendar	x				x		
Venture Capital					x		
Technology Transfer Network and Expanded Public Service Role		x					
Proprietary Rights					x		
Centralized Job Training Marketing							
Coordinated Federal Effort	x	x			x		
Image Campaign		x					
Urban University Grant Program and Expanded Social Research						x	
Student Entrepreneurship Training					x		x
Modified Tenure Policies					x		

Adjusting Appropriations Through Increases and Decreases

RECOMMENDATION: THAT THE COMMISSION'S MAJOR PROPOSALS FOR INCREASES AND DECREASES BE IMPLEMENTED IN THE APPROPRIATIONS PROCESS FOR FISCAL YEAR 1986.

The work of implementing the proposed agenda will fall on all state sectors, and the first task to be undertaken is that of adjusting appropriations.

The following chart summarizes funding changes tied to the Commission's recommendations. **These funding recommendations are the minimum required, in the Commission's view, to immediately shore up the state's research and technology capacity, stabilize tuition and expand financial aid, fund necessary maintenance and repair, provide for new faculty options, and accumulate the data necessary for future planning.**

FISCAL REQUIREMENTS
(Dollars in Thousands)

	Increase Over FY 1985		
Student Financial Aid	FY 1986	FY 1987	Total Cost or Continuing Cost
*Competitive Scholarship Increase	$ 15,500.0	$ 15,500.0	Continuing
*Work Study Program	5,000.0	5,000.0	Continuing
*Teacher Education Scholarships	1,000.0	1,000.0	Continuing
*General Grant Program	8,000.0	8,000.0	Continuing
*Outreach	500.0	500.0	Continuing
Student Financial Aid Subtotal	$ 30,000.0	$ 30,000.0	
Faculty Options	$ 2,000.0	$ 2,000.0	Continuing
Instructional Equipment		$ 12,000.0	$ 60,000.0
Facility Restoration			
*Deferred Maintenance	$ 30,000.0	$ 30,000.0	$120,000.0
*Remodeling	10,000.0	10,000.0	Continuing
Facility Restoration Subtotal	$ 40,000.0	$ 40,000.0	
Research Excellence Fund			
*Centers of Scholarly Excellence	$ 15,000.0	$ 15,000.0	Continuing
*State Match for Endowed Faculty Positions	5,000.0	5,000.0	$ 15,000.0
*Major Research Equipment	10,000.0	10,000.0	Continuing
*Graduate Fellowships	2,000.0	2,000.0	Continuing
*State Match for Indirect Cost Revenues	10,000.0	10,000.0	Continuing
Research Excellence Fund Subtotal	$ 42,000.0	$ 42,000.0	
Total Fiscal Requirements	$114,000.0	$126,000.0	

The foregoing report also makes a number of recommendations which would result in reduced fiscal requirements. It is estimated that these savings could exceed $50 million in operating funding and result in a capital cost avoidance of over $600 million.

Cost saving recommendations include:

- **ROLE AND MISSION CLASSIFICATION**—The Commission's classification would result in reduced subsidies for certain graduate programs.
- **FORMULA FUNDING**—An enrollment driven formula would adjust funding among the colleges and universities for enrollment changes and, assuming enrollment declines as projected, would also result in reductions in state aid attributable to the systemwide enrollment reduction.
- **BUDGET PROCESS**—The Commission recommends a program review procedure tied to the budget development process which will eliminate state subsidies for some low student volume, low faculty workload and duplicative programs.
- **HEALTH CARE PROGRAMS**—The Commission's recommendation to reduce the size of physician, dental and nursing higher education programs would produce significant savings.
- **CAPITAL OUTLAY CRITERIA**—Use of the recommended criteria would eliminate many proposed new construction projects and would result in a significant cost avoidance.

APPENDIX A

STATE OF MICHIGAN

Executive Office ★ Lansing

EXECUTIVE ORDER

1983-11

ESTABLISHMENT OF THE COMMISSION
ON THE FUTURE OF HIGHER EDUCATION

WHEREAS, accelerated economic change has resulted in a need for new and different skill requirements and research, while limited financial resources and population patterns that appear to be shifting have reduced the ability of Michigan's higher education institutions to respond to the many needs of our state; and

WHEREAS, there is a consensus that higher education is vital to our future and to Michigan being a world class center of business, industry, commerce, trade, culture and environmental richness; and

WHEREAS, there has been considerable discussion among Michigan citizens regarding the need for a reexamination of our higher education system and a reevaluation of institutional missions focused on Michigan's future needs;

NOW, THEREFORE, I, JAMES J. BLANCHARD, Governor of the State of Michigan, pursuant to the authority vested in me by the Michigan Constitution of 1963 in Article V, Section 4, do hereby order the establishment of the Commission on the Future of Higher Education within the Executive Office of the Governor.

The Commission shall have the following duties and responsibilities:

1. Recommend future needs for higher education in Michigan. The focus should be on the broad goals of the revitalization of Michigan while maintaining educational excellence. These recommendations should include statements about quality, diversity, access, affordability, institutional missions and program offerings. The survey should include the 15 public baccalaureate colleges and universities, the 29 community and junior colleges, as well as their interaction with the 56 independent colleges and universities.

2. Consider the areas of research that should receive priority support in a time of diminished resources and recommend means for financing these priorities.

3. Assess the expanded public service role these institutions can play in stimulating economic development, augmenting continuing education and cultural enrichment and improving the quality of life in all sectors of our state.

4. Explore all feasible options for achieving the recommended future goals in higher education while maintaining cost efficient centers of advanced learning which make maximum use of existing facilities and talent resources.

5. Compare recommended objectives and requirements to those of the present system of higher education; examine the current configurations of students, faculty, programs, material resources, and facilities to determine the capacity of the present system to achieve these new objectives; and ascertain the recommended changes which should be made based on the Commission's stated goals.

6. Seek advice from all sectors of the higher education community including students and consult with members of the Michigan Legislature.

7. Develop recommendations for future state policy together with guidelines for implementation, including proposed legislation and budget needs which address priorities and investment requirements.

The Commission on the Future of Higher Education shall present a preliminary report, not later than March 30, 1984, and a final report, not later than October 1, 1984, to the Governor and the State Board of Education, embodying recommendations related to all of the duties and responsibilities to which it has been assigned by this order.

All state departments and agencies shall cooperate with the Commission in in the performance of its responsibilities. The departments shall make every effort to avail the Commission of staff and other means of support to assist in the performance of the Commission's duties.

Given under my hand and the Great Seal of the State of Michigan this 19th day of September in the Year of Our Lord, One Thousand Nine Hundred Eighty-Three, and of the Commonwealth, One Hundred Forty-Seven.

James J. Blanchard
GOVERNOR

BY THE GOVERNOR:

Richard H. Austin
SECRETARY OF STATE

APPENDIX B

Background Papers

Following is a complete listing of the background papers referred to in this report. A set of *The Complete Issue Papers of the Governor's Commission on the Future of Higher Education* will be available for a charge from the Michigan Department of Management and Budget. These papers include:

- Trends, Issues and Decisions Facing Michigan's Higher Education System
- An Overview of Previous Michigan Higher Education Commissions
- Postsecondary Enrollments, United States and Michigan: Summary of Historical Data and Projections
- Qualititative Reform of Public Schooling
- Capital Outlay Discussion Paper
- Occupational Supply and Demand and Postsecondary Education
- Equal Access for Women, Minorities and Handicappers in Higher Education
- Issues and Problems Regarding Financial Access to Higher Education in Michigan
- Elements of Quality Associated with Bachelor and Associate Degree Programs in Michigan
- A Summary of Other States' Higher Education Special Commission and Taskforce Activities
- To the Year 2000: Future Trends and Implications for Higher Education
- State Level Academic Program Review and Approval: 1984 Update
- Background Material on Governance
- An Analysis of the Distribution of Programs at Michigan Public Colleges and Universities
- Overview of Educational Television in Michigan
- A Summary of the Statewide Public Comment Sessions
- Comparison of Michigan's Program Approval and Review Process to Other States'
- Michigan Society of Professional Engineers Task Force Report on Infrastructure (Deferred Maintenance)
- 1982-83 Michigan College and University Undergraduate Student Financial Aid Survey
- An Overview of Formula Funding in Higher Education
- Trustee Selection Recommendations — National Commission on College and University Trustee Selection
- Comparative Study on Higher Education Finance
- Background and Policy Papers: Higher Education Roles and Missions
- Public Higher Education and State Economic Growth: A Strategy for Strengthening the Research, Public Service and Job Training Capabilities of Colleges and Universities
- Attitudes and Opinions: Michigan Higher Education

APPENDIX C

Governor's Commission on the Future of Higher Education

James K. Robinson, Chairman
Attorney; Partner, Honigman, Miller, Schwartz and Cohn. Adjunct professor, Wayne State University Law School. Former United States Attorney, Eastern District of Michigan, 1977-1980. Distinguished Alumni Award, WSU Law School, 1979. Chairman, Michigan Supreme Court's Committee on Rules of Evidence. President, National Association of Former United States Attorneys. Commissioner, State Bar of Michigan.

William M. Brodhead, Vice Chairman
Attorney, Plunkett, Cooney, Rutt, Watters, Stanzyck & Pedersen. Former U.S. Congressman, 17th District, 1975-1982. State Representative, 1971-1974. Member, Board of Trustees of the Skillman Foundation, Mt. Carmel Mercy Hospital, Detroit Educational Television Foundation.

George Arwady
Editor and Publisher, Muskegon Chronicle. Chairman, Muskegon County Convention Center Committee. Chairman, Love, I[illegible]f Muskegon County. President, New Muskegon. C[illegible]an, Michigan Communities of Economic Ex[illegible] Panel. Trustee, Muskegon County Conv[illegible]ation.

Beverly A. B[illegible]tta
President, PR Associa[illegible]. Past Chairperson, Greater Detroit Chamber of Commerce. Board of Directors, Detroit Economic Growth, Economic Alliance for Michigan. Steering Committee, Leadership Detroit. Member, Detroit Area Private Industry Council; Metropolitan Detroit Convention and Business Bureau. Board member, Greater Michigan Foundation and Hutzel Hospital.

Francis D. Brouillette
Attorney, Brouillette Law Offices. Dickinson County Prosecuting Attorney, 1960-1976. Iron Mountain City Attorney, 1958-1960.

William Byrum
Owner, Byrum Farms. Member, Presidential Minimum Wage Study Commission, 1978-1981. Executive Vice President, Michigan Cattlemen's Association, 1975-1980. Former Michigan Farm Bureau manager and livestock marketing specialist.

Father Malcom Carron, S.J.
President, University of Detroit Jesuit High School and Academy. Former President and Chancellor, University of Detroit. Charter member and former chairman of New Detroit, Inc. Commissioner, North Central Association. Former Detroit Police Commissioner. Board member of many civic and community service groups.

Richard Cordtz
Secretary-Treasurer, Executive Board member and international representative, Service Employees International Union, AFL-CIO. President, Local 79 and Joint Council No. 35. Served on United Foundation Executive Board, Michigan Wage Deviation Board, Governor's Safety Study Task Force Committee, Wayne County Planning Commission, Industrial Relations Research Association, Detroit chapter.

Albert J. Dunmore
Board Chairman, Chrysler Learning, Inc. Public affairs consultant and former Director of Community Relations and Urban Affairs, Chrysler Corporation. Editorial consultant, former managing editor, Michigan Chronicle. Former editor, manager, The Pittsburgh Courier. Board of Directors, NAACP; Black Family Development, Inc., Friends School of Detroit. Member, New Detroit, Inc.

Dr. John A. Hannah
President Emeritus, Michigan State University. Administrator, U.S. Agency for International Development, 1969-1974. Deputy Secretary General, United Nations, and Executive Director, World Food Council, 1975-1978. Former Assistant Secretary for Defense, Chairman of U.S. Commission on Civil Rights, 1957-1959. Chairman, Citizens Advisory Task Force on Civil Service Reform of Michigan, 1979. Trustee, International Agricultural Development Services. Chairman, International Fertilizer Development Center. Medal of Freedom Award.

Michele M. Hunt
Director of Corporate Relations, Herman Miller, Inc. Former Treatment Director, Michigan Dunes Correctional Facility. Manager, Community Services Unit, Michigan Department of Corrections, and Supervisor of Women's Corrections Center. Probation parole agent. Board of Directors, Holland Hospital, Grand Rapids Symphony. Former board member, Child and Family Services, Ottawa County, and Heritage Homes, Inc.

Rachel B. Keith, M.D.
Physician. Commissioner, Mayor's Emergency Relief Committee and Health Advisory Commission, Detroit, 1982. Clinical assistant professor, Wayne State University School of Medicine. Honorary doctorate, Central Michigan University, 1983. Active on committees at Detroit Memorial, Hutzel, and University of Michigan hospitals. Board of Directors, Michigan Cancer Foundation, Detroit Symphony Orchestra. Member, Detroit Science Center Corporation. Life member, NAACP.

Robert Lowes
Secretary-Treasurer, Detroit Carpenters District Council. President, Carpenters Local 95. Former board member, State Carpenters Council. Delegate and committeeman, state AFL-CIO convention. Active in local area politics.

Henry G. Marsh
Attorney. Former mayor and council member, City of Saginaw. Former chairman, Saginaw Human Relations Commission. Former Chairman, Employment Relations Commission. Board of Trustees, Michigan Municipal League. Former member, Michigan Commission on Law Enforcement and Criminal Justice. Member, NAACP.

Stanley Marshall
Region 1-C Director, United Auto Workers. Member of UAW International Executive Board. Local 599 officer and international staff member. Former Buick assembly line worker.

Patricia L. Micklow
Chief Civil Counsel, Marquette County. Former assistant prosecuting attorney, Marquette County. Member, Representative Assembly, Michigan State Bar and State Bar Committee on Judicial Qualifications. Co-chair, 1978 Advisory Task Force on Spouse Abuse for special joint State Legislative Committee. Member, Michigan Domestic Violence Prevention and Treatment Board. Member, Merit Selection Committee for U.S. Western District Court Judges, 1979.

Dr. James W. Miller
President Emeritus, Western Michigan University. Former State Controller. 1955-1960. Former political science faculty member and secretary to the Board of Trustees, Michigan State University. Served on numerous boards including Detroit branch of Federal Reserve Bank of Chicago, Society for Mental Health, Michigan Civil Service Commission. Active in Kalamazoo civic and cultural organizations.

Helen W. Milliken
Former national co-chairperson, ERAmerica. Board of Directors, Automobile Club of Michigan and Ruth Mott Foundation. Honorary chairperson, Michigan Artrain. Elected to Michigan Women's Hall of Fame. Detroit News Michiganian of the Year Award, 1979. Honorary degrees from six universities and colleges. Active in Michigan China Council, American Women for National Understanding, League of Women Voters and Nature Conservancy.

Lillian Jaffe Oaks
Former president, Southfield City Council. Real estate developer, involved in building and managing apartment buildings. Past member, Lafayette Clinic Institutional Review Committee. Former teacher in Detroit Public Schools. Board of Directors, Lycee International. Board member, Picolo Opera Company and advisory board, Providence Hospital. Active in numerous civic organizations including Chamber Music Society of Detroit and Detroit Symphony Orchestra.

Robert C. Pew
Chairman and Chief Executive Officer, Steelcase, Inc. Served on numerous boards and committees, including Grand Valley State College Citizens Council, Board of Aquinas College, Michigan State Chamber of Commerce, Grand Rapids Foundation, Business Equipment Manufacturers Association. Member of Economic Development Corporation of Grand Rapids.

Charles F. Porter
President and owner, Globe of Michigan, Inc. Former member, president and treasurer of Grand Rapids Board of Education. Former member, Grand Rapids United Fund, Grand Rapids Urban League, Grand Rapids Recreation Board, and State Board of Education Community College Districting Committee.

Philip H. Power
Board Chairman, Suburban Communications, Inc. Chairman, Michigan Job Training Coordinating Council. Member, Governor's Council on Jobs and Economic Development. Former director, Suburban Newspapers of America. Delegate to numerous world press freedom conferences. Lecturer, National War College, 1981-1982. Board of Directors, World Press Freedom Committee, Detroit Press Club Foundation, Michigan Growth Capital Corporation, and the Power Foundation. Member of National Business Council for ERA.

Dr. Phillip E. Runkel
State Superintendent of Public Instruction. Former superintendent, American Community Schools of Athens, Inc., Athens, Greece. Superintendent, Grand Rapids Public Schools, 1970-1978. Former teacher and principal. Distinguished Alumni Award, Michigan State University College of Education, 1983. Numerous other awards and four honorary doctorates.

Dr. Gumecindo Salas
President, State Board of Education. Director of Minority Programs Division, Michigan State University Department of Human Relations. Former counselor and teacher in Detroit Public Schools. Professor at Wayne State University. Numerous awards, including Spirit of Detroit Award from Detroit City Council, 1983. Participant in White House briefings and conferences.

Stanley J. Winkelman
Retired board chairman and chief executive officer, Winkelman Stores, Inc. President, Metropolitan Affairs Corporation. Board of Directors, New Detroit, Inc., the United Foundation, Economic Alliance for Michigan, Economic Growth Corporation of Detroit, Detroit Renaissance, Inc., Economic Club of Detroit, and the Jewish Welfare Federation. Co-chairman, Mayor's Emergency Relief Committee, 1983. Recipient of numerous awards.

APPENDIX D

Governor's Commission on the Future of Higher Education Staff

Dr. Patricia Widmayer, Executive Director
Formerly Director of Policy and Cabinet Affairs, Office of the Governor. Director of Legislation and School Law, State Department of Education. District staff director for United States Congressman. Research analyst for Office of the Speaker, Michigan House of Representatives. Instructor, Oakland University and high school teacher.

L. Annette Abrams, Deputy Director
On leave as Director of Office of Intergovernmental Relations and Affirmative Action, Michigan Department of Mental Health; was also legislative policy analyst for Michigan State Senate, Ford Foundation executive, and administrator for several federal drug abuse projects. Served on staff of U.S. Senator.

Dr. Dwight Lee Peterson, Associate Director
Also Supervisor of Support Services, Student Financial Assistance, Michigan Department of Education; responsible for development of statewide financial aid information packages, administering degree reimbursement programs for private colleges. Consultant and administrator for university admission programs, grants and scholarships.

Paul Reinhart, Associate Director
On leave as program budget analyst, Michigan Department of Management and Budget, with responsibility for development of annual budget recommendations for numerous departments and education programs including financial aids, community colleges and capital outlay; held other budget-related development jobs in state civil service.

Patricia (Tish) Tanski, Associate Director
Research Director, Michigan Department of Commerce. Formerly Director of Budget Office, Michigan Department of Labor. Has served in various state and private agencies as a fiscal, legal and legislative analyst. Former VISTA volunteer.

Melinda Remer, Executive Assistant
On leave from the Michigan Department of Civil Rights, Special Projects. Former policy analyst, Office of the Governor. Served as administrative assistant for Minority Leader, Michigan House of Representatives, with responsibility for office administration, legislative proposals and departmental liaison.

Rhea Lodge, Public Information Director
On leave from Michigan Department of Labor. Former newspaper editor; owner of public relations and advertising firm; affiliated with several others. Former Director of Public Relations, Oakland University Continuing Education Department.

Jean Valley, Executive Secretary
On leave from Corporations and Securities Bureau, Michigan Department of Commerce. Former secretary in the Office of the Governor in area of education and student financial aid in the State Department of Education; also secretary to Michigan Youth Corps.

Shirley Winters, Receptionist-Secretary
Formerly secretary for Northwest Suburban Aid for the Retarded, Park Ridge, Illinois. Clerical assistant, Park Ridge Public Library.

Elizabeth Thompson, Doctoral Intern
Ph.D. candidate, Michigan State University. Former university instructor and student residence program administrator.

Consultants have included:

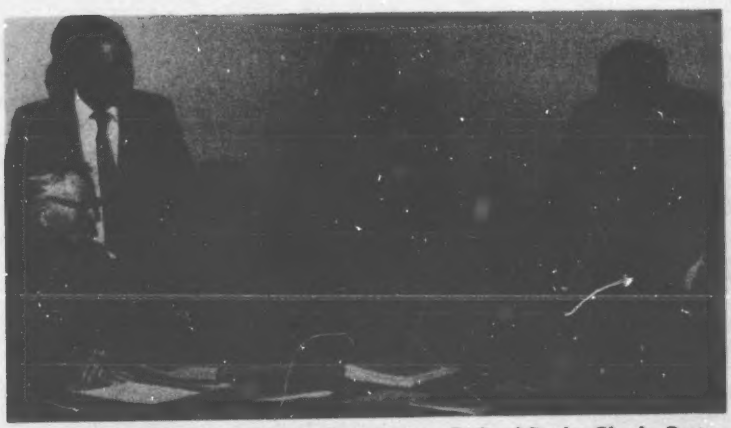
William B. Castanier, Director of Office of Public Affairs, Michigan Department of Labor. Has held various media positions, trade association and promotional management positions.

Dr. John F. Hanieski, Economist, Michigan Department of Commerce. Board of Directors, Michigan Industrial Developers Association. Chairman, Detroit/Wayne County Port Authority.

And thanks for their assistance to:

Martha Bergsten, Margaret Cooke, and Dr. Anthony Travis.

(From left) Dr. John A. Hannah, George Arwady, James K. Robinson, Lillian Jaffe Oaks, Patricia L. Micklow, Philip Power.



(L to r standing) Thomas Marsh for Commissioner Richard Cordts, Charles Porter, Stanley Winkelman. (Seated, from l) Father Malcolm Carron, Michele Hunt, Dr. Phillip Runkel, Cyril McGuire for Commissioner Stanley Marshall.

(From left) Dr. James Miller, Dr. Gumecindo Salas, Robert Pew, Henry Marsh, Dr. Rachel Keith, William Brodhead.

Commissioners William Byrum and Albert Dunmore.

Jean Valley and Shirley Winters.

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